# Tested by **Standards** Certified by **Quality**

Accreditation from renowned organizations from Europe and UK, for Accelerated Weatherability Test (Artificial weathering up to 25,000 hours), Mechanical properties & Chemical composition of our formulation.

| Properties  | Standards                | Range                                | Result                    | Accreditations From  | Page No. |
|---|--------------------------|--------------------------------------|---------------------------|----------------------|----------|
|   | Defini                   | tion, Comparison and Cons            | equences                  |                      | 04 to 11 |
| Accelerated Weathering (50 GJ/m <sup>2</sup> @ 25000 Hours)     | DIN EN<br>513            | ΔE not more than 5                   | 1.6                       | SKZ-Germany & BSI-UK | 20       |
| Tensile Impact Strength   | BS EN ISO<br>8256:2005   | Not less than 600 KJ/m <sup>2</sup>  | 934 KJ/m <sup>2</sup>     | SKZ-Germany & BSI-UK | 16       |
| Flexural Modulus of<br>Elasticity                               | BS EN ISO<br>178:2013    | Not less than 2200 N/mm <sup>2</sup> | 3070<br>N/mm²             | SKZ-Germany & BSI-UK | 16       |
| Charpy Impact Strength  | BS EN ISO<br>179 -2:1999 | Not less than 20 KJ/m <sup>2</sup>   | 74.5 KJ/m <sup>2</sup>    | SKZ-Germany & BSI-UK | 25       |
| Reduction in Charpy Impact Strength [Before & After Weathering] | DIN EN ISO<br>179 -1/1fA | Not More than 40%                    | 10.4 %                    | SKZ-Germany          | 25       |
| Vicat Softening<br>Temperature                                  | BS EN ISO<br>306:1997    | Not less than 75°C                   | 80°C                      | SKZ-Germany & BSI-UK | 32       |
| Heat Reversion @ 100 °C,60 Minutes                              | BS EN<br>12608-1:2016    | To comply as per EN 12608-1:2016     | Pass                      | BSI- UK              | 37       |
| Resistance to Impact of Main Profile by falling Mass @-10°C,    | BS EN<br>12608-1:2016    | To comply as per EN 12608-1:2016     | Pass                      | BSI- UK              | 38       |
| Weld Strength(Individual Specimen)                              | BS EN<br>514:2000        | Not less than 20 Mpa                 | 25.32 Mpa                 | BSI- UK              | 39       |
| Heat Aging @ 150°C,30<br>Minutes                                | BS EN<br>12608-1;2016    | To comply as per EN 12608-1:2016     | Pass                      | BSI- UK              | 39       |
| RoHS  | DIRECTIVE<br>2011/65/EU  | Lead should not be detected          | Not detected              | SGS                  | 42       |
| Flammability  | UL-94                    | 10 Sec                               | V <sub>o</sub>            | CIPET                | 50       |
| Limiting Oxygen Index (LOI)                                     | ASTM<br>D2863            | 45 %                                 | 47%                       | CIPET                | 51       |
| Density   | ASTM<br>D 792            | Not Exceed 1.5 gm/cc                 | 1.46 gm/cc                | CIPET                | 54       |
| Thermal Conductivity  | ASTM<br>E-1530           | 0.12 to 0.25 W/mk                    | 0.137 W/mk                | CIPET                | 55       |
| Co-efficient of Linear<br>Thermal Expansion                     | ASTM<br>D 696            | Below 5x10 <sup>-5</sup> /°C         | 3.82x10 <sup>-5</sup> /°C | CIPET                | 60       |

# Accelerated Weathering Test (DIN EN 513)



### DEFINITION

Accelerated weathering is a simulation of adverse environment conditions to speed up the weathering process to evaluate the compatibility of uPVC Profile against extreme tropical weather conditions.

Measure of ΔE value of uPVC Profile specimen through simulation of severe climatic zone 's' at 25000 hours @ 50 GJ/m<sup>2</sup> of irradiation

## EN Standards vs PROMINANCE



## CONSEQUENCES

ΔE Value beyond 5 leads to discolouration hazard and cannot comply any warranty commitment, whereas Prominance complies ΔE below 2.

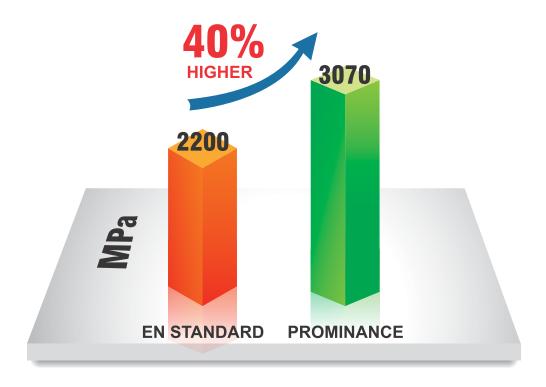
# Flexural Modulus Of Elasticity Test (EN ISO 178)



### DEFINITION

Flexural modulus is the tendency of uPVC specimen to bend i.e. Quantification of stress to strain ratio in Flexural deformation.

## EN Standards vs PROMINANCE



## CONSEQUENCES

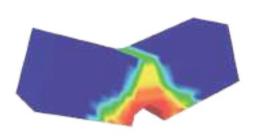
Poor Elasticity results into more brittleness and vulnerability.

# **Charpy Impact Strength Test (EN ISO 179)**

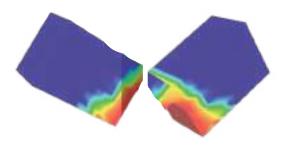
## DEFINITION

Charpy V-notch test, is a standardized high strain-rate test which determines the amount of energy absorbed by uPVC during fracture.



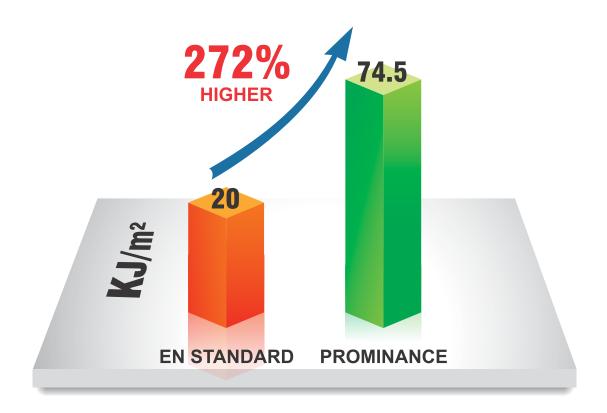


DUCTILE FRACTURE



BRITTLE FRACTURE

# **EN Standards vs Prominance**



**Ductile Fracture**: Type of Fracture characterized by extensive deformation of plastic or "necking" resulted by finest grades of raw material used for extruding window Profiles.

**Brittle Fracture**: Type of Fracture characterized by rapid crack propagation with low energy release and without significant plastic deformation resulted by inferior or coarse grades of raw materials.

## CONSEQUENCES

Poor impact strength results to brittle failure.

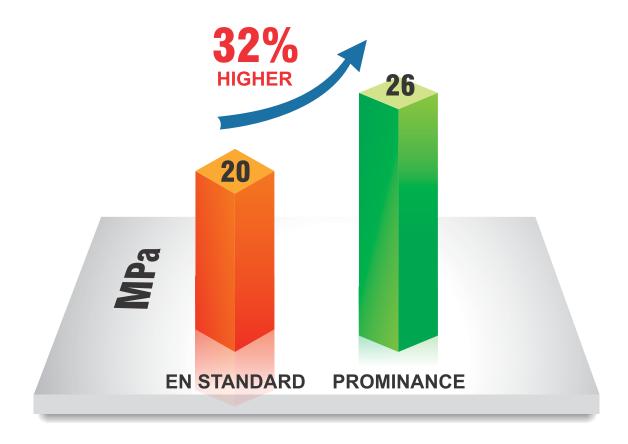
# **Weld Strength Test (EN 514)**



### DEFINITION

The measure of the molecular bonding strength of fusion welding i.e. The minimum failure load of welded corners.

## EN Standards vs PROMINANCE



## CONSEQUENCES

Low weld strength leads to weld cracks and panel cracks during transit and installation of Windows.

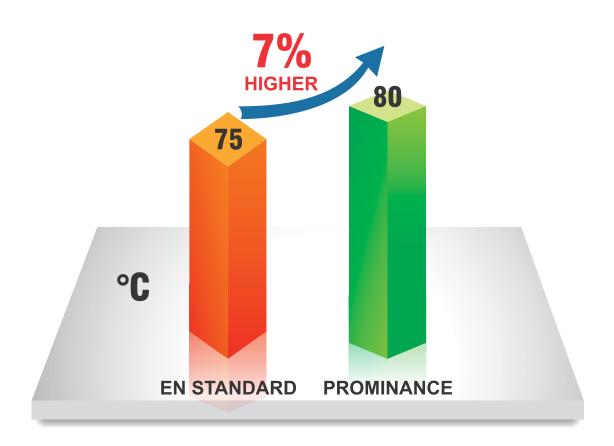
# **Vicat Softening Temperature(VST)-(EN ISO 306)**



### DEFINITION

The temperature at which the uPVC test specimen allows maximum penetration of needle upto 1mm, while it is heated up in an oil bath with simultaneous application of load(10N-50N) on the needle.

## EN Standards vs PROMINANCE



## CONSEQUENCES

Lower VST indicates poor formulation strength and deteriorate on early stages. Windows may deteriorate even at lower temperature.

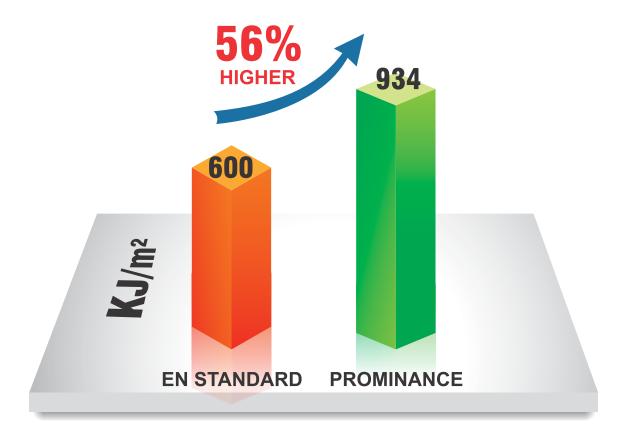
# **Tensile Impact Test (EN ISO 8256)**



### DEFINITION

The method of investigating the behaviour of the brittleness and toughness of uPVC specimen under specified impact velocities.

# EN Standards vs PROMINANCE



## CONSEQUENCES

Poor mechanical strength is more vulnerable for impact loads on Windows.

# **Heat Reversion (EN 12608)**



## **Definition**

Heat reversion is the behaviour of uPVC Profile to withstand the expansion or contraction at elevated temperature ( $100^{\circ}$ C at 60 minutes in hot air oven). The value shall not be >2% in the largest opposing sight surfaces.

Heat reversion difference shall not be >0.4% of two visual surfaces.

## **Consequences:**

Window warpage issue.

# Heat Aging (EN12608)



## **Definition**

Heat Aging is the behaviour of uPVC Profile specimen to withstand against the surface crack, surface peel off and blisters when simulated at elevated temperature (150°C at 30 minutes in hot air oven).

## **Consequences:**

Cracks and rupture on the Window Profile surface due to entrapped gases.





#### Z122108/16

We hereby confirm that the tested window profiles made of PVC-U, produced with formulation

### PROMINANCE uPVC DRYBLEND

of producer

Prominance uPVC Profiles, Captiv Fenestration Appanaikenpatti, Sulur 641402 Coimbatore, TAMIL NADU INDIA

according to the results of test report no. 122108/16 dated 14 October 2016

of the accredited Testing Laboratory

SKZ - Testing GmbH Friedrich-Bergius-Ring 22 97076 Würzburg GERMANY

complies with the requirements regarding

#### Material characteristics

(Vicat-softening temperature, Flexural modulus of elasticity and Tensile impact strength)

in accordance with the standard mentioned below

DIN EN 12608-1: 2016-08, annex A

This is to confirm that the formulation tested in the aforementioned report is in conformity with the standard. If the formulation is changed, this certificate becomes invalid and a new test must be performed.

Würzburg, 2016-10-17



Certification Body

## Das Kunststoff-Zentrum



Test report no.: 122108/16

Customer: Prominance uPVC Profiles, Captiv Fenestration

Appanaikenpatti, Sulur

641402 Coimbatore, TAMIL NADU

INDIA

Order: Testing of the material characteristics according to

DIN EN 12608-1: 2016-08, annex A on profiles made

of PVC-U for the fabrication of windows and doors

Letter of: 2016-07-21 by: Mr. Shan

Sample receipt: 2016-08-03

Test period: 2016-08-09 to 2016-10-10

This test report comprises 4 pages.

Würzburg, 2016-10-14 Rs/km

Dr. Anton Zahn

Wolfgang Ries

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Page 2 of 4 Test report no.: 122108/16:

#### Order

By its letter of 21 July 2016 the company Prominance uPVC Profiles, Captiv Fenestration, Appanaikenpatti, Sulur, 641402 Coimbatore, TAMIL NADU, INDIA instructed the SKZ - Testing GmbH to test the material characteristics according to DIN EN 12608-1: 2016-08, annex A on profiles made of PVC-U for the fabrication of windows and doors.

#### 2. Test material

SKZ - Testing GmbH had the following test material at their disposal on 3 August 2016:

4 x 1 m window profile sections made of PVC-U, colour white

Profile manufacturer:

Prominance uPVC Profiles, Captiv Fenestration, INDIA

Designation of system:

PROMINANCE SASH PC62 US 04

Designation of profile: Profile marking:

PROMINANCE PC62 US 04 21.04.16 18:21 AGRN L7

Designation of formulation:

PROMINANCE uPVC DRYBLEND

Base of stabilization:

CaZn

#### 3. Test procedure

Testing of material characteristics was carried out according DIN EN 12608-1, window profiles made of PVC-U "Unplasticized polyvinylchloride (PVC-U) profiles for the fabri-cation of windows and doors - Classification, requirements and test methods - Part 1: Non-coated PVC-U profiles with light coloured surfaces", edition 2016-08, annex A, item A.4.

Unless indicated otherwise, pre-testing storage and the test itself were carried out at standard conditioning atmosphere 23/50, class 1 according to DIN EN ISO 291: 2008-

Usually we carry out tests according to standards for which we have an accreditation. The list of all standards for which we are accredited is shown on the homepage at www.skz.de.



Page 3 of 4 Test report no.: 122108/16

3.1 Vicat-softening temperature (VST)

The Vicat-softening temperature (VST) was determined according to DIN EN ISO 306; 2004-10, method B/50. The required samples were taken from the outer surface of the window profile. The mean value is based on 3 individual values.

#### Requirement:

The Vicat-softening temperature (VST) must be at least 75 °C on average and each individual value must be at least 73 °C.

#### 3.2 Flexural modulus of elasticity

The flexural modulus of elasticity (E<sub>b</sub>) was determined according to DIN EN ISO 178: 2013-09. The samples were taken from profile section by milling. The test speed was 1 mm/min, the support distance L was 48 mm (16 x sample thickness).

#### Requirement:

The flexural modulus of elasticity must be at least 2200 N/mm<sup>2</sup> on average and each individual value must be at least 2000 N/mm<sup>2</sup>.

#### 3.3 Tensile impact strength

The tensile impact strength test was carried out according to DIN EN ISO 8256: 2005-05 on samples of type 5. The samples were taken from the outer sight surface of the window profiles, in the direction of extrusion, by machining. The impact energy capacity of the pendulum was 50 J.

The mean value is based on 10 individual values.

#### Requirement

The mean tensile impact strength must be at least 600 kJ/m² on average and each individual value must be at least 450 kJ/m².



Page 4 of 4 Test report no.: 122106/16

#### Test results

#### Vicat-softening temperature (VST)

|      | Vicat-se        | oftening temperate | ure (VST) in [°C] |
|------|-----------------|--------------------|-------------------|
| Inc  | fividual values |                    | Mean value        |
| 80.5 | 80.7            | 80.7               | 80.6              |

Smallest individual value: 80,5 °C

## 4.2 Flexural modulus of elasticity

| Flexural modulus of ele                           | sticity in [N/mm²] |
|---|--------------------|
| Mean value from min. 5 individual<br>measurements | Standard deviation |
| 3070  | 64                 |

Smallest individual value: 3010 N/mm<sup>2</sup>

#### 4.3 Tensile impact strength

| Tensile im                                    | pact strength in [kJ/m²] |                    |
|---|--------------------------|--------------------|
| Mean value from 10 individual<br>measurements | Standard deviation       | Fracture behaviour |
| 934   | 143                      | ductile            |

Smallest individual value: 770 kJ/m<sup>2</sup>

### Assessment of test results

The requirements of DIN EN 12608-1: 2016-08, annex A, item A.4 concerning material characteristics on profiles made of PVC-U for the fabrication of windows and doors were fulfilled in the tested items.

## Das Kunststoff-Zentrum



Test report no.:

Customer: Prominance uPVC Profiles, Captiv Fenestration

122109/16-III

Appanaikenpatti, Sulur 641402 Coimbatore TAMIL NADU INDIA

Production site: Prominance uPVC Profiles, Captiv Fenestration

Appanaikenpatti, Sulur 641402 Coimbatore TAMIL NADU INDIA

Order: Testing of Fastness to weathering, classification for climate

zone S (severe climate) according to DIN EN 12608-1: 2016-08 "Unplasticized poly (vinyl chloride) (PVC-U) profiles for the fabrication of windows and doors - Classification, requirements and test methods", Part 1; Non-coated

PVC-U profiles with light coloured surfaces.

Artificial weathering according to DIN EN 513: 1999-10, procedure 2 (simulation of a severe climate zone S) up to a raised irradiation dose equivalent first of 20 GJ/m<sup>2</sup>, continuation following up to a raised total irradiation dose equivalent of altogether 50 GJ/m<sup>2</sup> in the wave length range of

300 nm to 800 nm.

 Letter of:
 2016-07-30
 Ref: Mr. V. Shan

 Email of:
 2017-09-27
 Mr. S. Devarajan

2018-05-15

Sample receipt: 2016-08-03

Test period: 2016-08-05 to 2019-09-30

This test report comprises 4 pages.

Würzburg, 21 October 2019

Fs/km

Dr.-Ing. Marcus Heindl Head of Testing Laboratory i.A.

Wolfgang Ries Deputy Group Manager

Testing Laboratory Profiles and Sealants

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Page 2 of 4 Test report no. 122109/16-III

#### 1. Order

By its letter dated 30 July 2016 and its emails dated 27 September 2017 and 15 May 2018 the company Prominance uPVC Profiles, Captiv Fenestration, Appanaikenpatti. Sulur, 641402 Coimbatore, TAMIL NADU, INDIA instructed SKZ - Testing GmbH to test the Fastness to weathering, classification for climate zone S (severe climate) according to DIN EN 12608-1: 2016-08 "Unplasticized poly (vinyl chloride) (PVC-U) profiles for the fabrication of windows and doors - Classification, requirements and test methods", Part 1: Non-coated PVC-U profiles with light coloured surfaces. Artificial weathering was carried out according to DIN EN 513: 1999-10, procedure 2 (simulation of a severe climate zone S) up to an irradiation dose equivalent first of 20 GJ/m2, continuation following up to a raised total irradiation dose equivalent of altogether 50 GJ/m2 in the wave length range of 300 nm to 800 nm.

#### 2. Test material

On 3 August 2016 SKZ - Testing GmbH received following test material:

4 x 1 m window profile sections made of PVC-U, colour white

Profile designation: Sash PC 62 US 04

Profile classification: class A

Profile marking: PROMINANCE PC 62 US 04 21.04.16 19:25 AGRN L7

Formulation: Prominance uPVC Dry Blend

Basis of stabilization:

#### 3. Test procedure

Following tests were performed according to DIN EN 12608-1; 2016-08, item 5.9 Resistance to weathering, climate zone S. Artificial weathering according to DIN EN 513: 1999-10, procedure 2 (simulation of a severe climate zone S) up to a raised irradiation dose equivalent of altogether 50 GJ/m2 in the wave length range of 300 nm to 800 nm.

Unless otherwise noted testing was performed at a standard atmosphere of 23/50, class 1 in accordance with DIN EN ISO 291: 2008-08.

Usually we carry out tests according to standards for which we have an accreditation. The list of all standards for which we are accredited is shown on the homepage at www.skz.de. All non-accredited procedures are marked with \*.



Page 3 of 4 Test report no. 122109/16-III

#### Parameter of xenon device

Type of weathering device: XENOTEST® BETA LM

Light source: Xenon-arc source

Filter: Terrestrial daylight simulation

Black standard temperature: 65 ± 3 °C White standard temperature: 45 - 50 °C Relative humidity: 65 ± 5 %

Spray cycle: 6 min water spray, 114 min dry cycle

Irradiation energy E<sub>UV</sub> (300 - 400) nm: 60 ± 2 W/m<sup>2</sup>

Total irradiation dose equivalent in the

wavelength range (300 - 800) nm: 50 GJ/m²
Exposure period: 25,483 h
Start (Exposure up to 20 GJ/m²): 2016-08-08
End (Exposure up to 20 GJ/m²): 2017-11-10
Start (Exposure up to 50 GJ/m²): 2017-11-10
End (Exposure up to 50 GJ/m²): 2019-09-30

#### 3.1 Fastness to weathering

Testing of Fastness to weathering was carried out according to DIN EN 12608-1; 2016-08, item 5.9.3.

#### 3.1.1 Visual assessment

Visual assessment was carried out according to ISO 4582: 2017-08 by using grey scale according to DIN EN 20105-A02: 1994-10.

#### 3.1.2 Colorimetric assessment

The colorimetric assessment was carried out by a spectrophotometer in wavelength range from 360 to 750 nm, standard light type D65, gloss inclusion, 10° standard observation. The colour distance  $\Delta$  E\*<sub>ab</sub> was determined according to DIN EN ISO 11664-4; 2012-06.

Requirement according to DIN EN 12608-1 (related to 12 GJ/m²):

After artificial weathering colour distance  $\Delta$  E\*<sub>ab</sub> between unweathered and weathered samples shall not be larger than 5 and colour distance  $\Delta$  b\* shall not be larger than 3.



Page 4 of 4 Test report no. 122109/16-III

#### 4. Test results

## 4.1 Fastness to weathering

#### 4.1.1 Visual assessment

The sample reached the fastness grade 4 of the grey scale according to DIN EN 20105-A02.

Neither stains, blisters nor crack formations or anything that significant damages the appearance were observed.

#### 4.1.2 Colorimetric assessment

| Colour coordinates  | Sample<br>as supplied | Sample after<br>weathering | Colour distance |
|---------------------|-----------------------|----------------------------|-----------------|
| L*                  | 95.7                  | 96,5                       | 0.8             |
| a*                  | -0.8                  | -0.9                       | -0.1            |
| b*                  | 2.9                   | 1.5                        | -1.4            |
| Colour distance ∆ E | ab                    |                            | 1.6             |

#### 5. Assessment of test results

The requirements (related to an irradiation dose equivalent of 12 GJ/m²) according to DIN EN 12608-1: 2016-08 regarding Resistance to artificial weathering (fastness to weathering and resistance to weathering), classification to climate zone S (severe climate) were met after a raised total irradiation dose equivalent of 50 GJ/m².

# ZERTIFIKAT



#### Z122109/16

We hereby confirm that the tested window probles made of PVC-U, produced with formulation

### Prominance uPVC Dry Blend, CaZn.

of producer

### Prominance uPVC Profiles, Captly Fenestration

Appaneikenpath, Sulur Colmbetore-641402 TAMIL NADU INDIA

according to the results of test report no. 122109/16 dated 18 August 2017.

of the appredited Testing Laboratory

SKZ - Testing GmbH Friedrich-Bergius-Ring 22 97076 Würzburg GERMANY

complies with the requirements regarding

# Resistance to weathering for climate zone S (severe climate, raised irradiation dose equivalent of 16 GJ/m²)

(Impact strength after artificial weathering and colour fastness)

in accordance with the standard mentioned below

DIN EN 12608-1: 2016-08

The ratio confirm that the formulation leaved ig the oformers must more our conformity with the standard.

If the formulation if the 1900, the centifying performed must display new test must be performed.

Würzburg, 2017-08-16



Dipl.-Ing. Helmut Zanzinger Certification Body

## Das Kunststoff-Zentrum



Test report no .:

122109/16

Customer:

Prominance uPVC Profiles, Captiv Fenestration

Appanaikenpatti, Sulur 641402 Coimbatore TAMIL NADU

INDIA

INDIA

Production site:

Prominance uPVC Profiles, Captiv Fenestration

Appanalkenpatti, Sulur 641402 Coimbatore TAMIL NADU

Order:

Testing of Resistance to artificial weathering (fastness to weathering and resistance to weathering), classification for climate zone S (severe climate) according to DIN EN 12608-1: 2016-08 "Unplasticized poly (vinyl chloride) (PVC-U) profiles for the fabrication of windows and doors -Classification, requirements and test methods\*, Part 1: Non-coated PVC-U profiles with light coloured surfaces.

Artificial weathering according to DIN EN 513: 1999-10, procedure 2 (simulation of a severe climate zone S) up to a raised irradiation dose equivalent of altogether 16 GJ/m2 in

the wave length range of 300 nm to 800 nm.

Letter of:

2016-07-30

Ref: Mr. V. Shan

Sample receipt:

2016-08-03

Test period:

2016-08-05 to 2017-08-18

This test report comprises 5 pages.

Würzburg, 2017-08-18

Dr.-Ing. Marcus Heindl

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Wolfgang Ries

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Page 2 of 5 Test report no. 122109/16

#### Order

By its letter dated 30 July 2016 the company Prominance uPVC Profiles, Captiv Fenestration, Appanaikenpatti, Sulur, 641402 Coimbatore, TAMIL NADU, INDIA instructed SKZ - Testing GmbH to test the Resistance to artificial weathering (fastness to weathering and resistance to weathering), classification for climate zone S (severe climate) according to DIN EN 12608-1: 2016-08 "Unplasticized poly (vinyl chloride) (PVC-U) profiles for the fabrication of windows and doors - Classification, requirements and test methods", Part 1: Non-coated PVC-U profiles with light coloured surfaces. Artificial weathering was carried out according to DIN EN 513: 1999-10, procedure 2 (simulation of a severe climate zone S) up to a raised irradiation dose equivalent of altogether 16 GJ/m² in the wave length range of 300 nm to 800 nm.

#### 2. Test material

On 3 August 2016 SKZ - Testing GmbH received following test material:

4 x 1 m window profile sections made of PVC-U, colour white

Profile designation: Sash PC 62 US 04

Profile classification: class A

Profile marking: PROMINANCE PC 62 US 04 21.04.16 19:25 AGRN L7

Formulation: Prominance uPVC Dry Blend

Basis of stabilization: CaZn

#### Test procedure

Following tests were performed according to DIN EN 12608-1: 2016-08, item 5.9 Resistance to weathering, climate zone S. Artificial weathering according to DIN EN 513: 1999-10, procedure 2 (simulation of a severe climate zone S) up to a raised irradiation dose equivalent of altogether 16 GJ/m² in the wave length range of 300 nm to 800 nm.

Unless otherwise noted all tests were carried out at standard atmosphere 23/50, class 1 according to DIN EN ISO 291: 2008-08.

Usually we carry out tests according to standards for which we have an accreditation. The list of all standards for which we are accredited is shown on the homepage at www.skz.de.



Page 3 of 5 Test report no. 122109/16

#### 3.1 Resistance to artificial weathering

Testing of Resistance to artificial weathering (fastness to weathering and resistance to weathering) was performed according to DIN EN 12608-1: 2016-08. Procedure of artificial weathering is based on the requirements according to DIN EN 513, procedure 2, simulation of a severe climate zone (S). Surface outside was irradiated. The artificial weathering was carried out up to a raised irradiation dose of altogether 16 GJ/m<sup>2</sup> in the wave length range between 300 nm to 800 nm.

#### Parameter of xenon device

XENOTEST® BETA LM Type of weathering device:

Light source: Xenon-arc source

Terrestrial daylight simulation Filter:

Black standard temperature: 65 ± 3 °C White standard temperature: 45 - 50 °C Relative humidity: 65 ± 5 %

6 min water spray, 114 min dry cycle Spray cycle:

Irradiation energy E<sub>UV</sub> (300 - 400) nm: 60 ± 2 W/m2

Total irradiation dose equivalent in the

wavelength range (300 - 800) nm: 16 GJ/m<sup>2</sup> Exposure period: 8140 h Start: 2016-08-08 End: 2017-08-04

#### 3.1.1 Resistance to weathering

Testing of Resistance to weathering was carried out according to DIN EN 12608-1: 2016-08, item 5.9.2 on double notched specimen following DIN EN ISO 179-1/1fA: 2010-11, but with a residual width between notches of (3 ± 0.1) mm and with the dimensions (50 x 6 x wall thickness) mm. The test was carried out subsequent to artificial weathering on reference samples, which have been stored in the dark, as well as on weathered samples. During this test the weathered surface was subjected to tensile stress.

Requirements according to DIN EN 12608-1 (related to12 GJ/m²):

The mean value of Charpy notched impact strength at condition as delivered (unweathered) shall not drop below 55 kJ/m2.

After artificial weathering Charpy notched impact strength of weathered samples shall not drop more than 40 % compared to the value of the unweathered samples.



Page 4 of 5 Test report no. 122109/16

#### 3.1.2 Fastness to weathering

Testing of Fastness to weathering was carried out according to DIN EN 12608-1; 2016-08, item 5.9.3,

#### 3.1.2.1 Visual assessment

Visual assessment was carried out according to ISO 4582: 2007-08 by using grey scale according to DIN EN 20105-A02: 1994-10.

#### 3.1.2.2 Colorimetric assessment

The colorimetric assessment was carried out by a spectrophotometer in wavelength range from 360 to 750 nm, standard light type D65, gloss inclusion, 10° standard observation. The colour distance  $\Delta$  E\*<sub>ab</sub> was determined according to DIN EN ISO 11664-4: 2012-06.

Requirement according to DIN EN 12608-1 (related to 12 GJ/m²):

After artificial weathering colour distance  $\Delta E^*_{ab}$  between unweathered and weathered samples shall not be larger than 5 and colour distance  $\Delta b^*$  shall not be larger than 3.

#### 4. Test results

#### 4.1 Resistance to artificial weathering

#### 4.1.1 Resistance to weathering

Charpy notched impact strength

| Samples corres    | ponding to DIN E | N ISO 179-1/ 1fA     | (notch base r | adius 0.25 mm) |
|-------------------|------------------|----------------------|---------------|----------------|
| reference sample  | (unweathered)    | weathered            | sample        | amendment      |
| x [kJ/m²]         | 8                | x [kJ/m²]            | 8             | [%]            |
| 74.4              | 1.5              | 66.7                 | 1.8           | -10.4          |
| 10 x (10 x partia |                  | 10 x<br>(10 x partia |               | _              |

 $\ddot{X}$  = mean value s = standard deviation



Page 5 of 5 Test report no. 122109/16

#### 4.1.2 Fastness to weathering

#### 4.1.1 Visual assessment

The sample reached the fastness grade 4 of the grey scale according to DIN EN 20105-A02.

Neither stains, blisters nor crack formations or anything that significant damages the appearance were observed.

#### 4.1.2 Colorimetric assessment

| Colour coordinates   | Sample<br>as supplied | Sample after<br>weathering | Colour distance |
|----------------------|-----------------------|----------------------------|-----------------|
| F.                   | 95.7                  | 96.4                       | 0.7             |
| a*                   | -0.8                  | -0.8                       | 0.0             |
| b*                   | 2.9                   | 1.2                        | -1.7            |
| Colour distance A E* | 6                     |                            | 1.8             |

#### 5. Assessment of test results

The requirements (related to an irradiation dose equivalent of 12 GJ/m²) according to DIN EN 12608-1: 2016-08 regarding Resistance to artificial weathering (fastness to weathering and resistance to weathering), classification to climate zone S (severe climate) were met after a total irradiation dose equivalent of 16 GJ/m<sup>a</sup>.



BSI Kitemark House Maylands Avenue Hemel Hempstead Hertfordshire HP2 4SQ

# Test Report 8572674.

# Captiv Fenestration / Prominance UPVC Profiles

Page 1 of 15 ... making excellence a habit.



This report has been prepared by Errol Creary and relates to the activity detailed below:

| Job/Registration Details  |  | Client Details  |  |
|---|--|---|--|
| Job number:<br>Job type:<br>Start Date:<br>Test type:<br>Sample ID: | 8572674<br>Testing Samples Submitted<br>25/07/2016<br>Direct<br>10164761<br>10165196<br>10173643 | Captiv Fenestration<br>Apparaikenpatti, Sulur<br>Coimbatore<br>Tamilnadu<br>641402<br>India |  |
| Registration:<br>Protocol:<br>Quality system:<br>Registration:      | NA<br>NA<br>NA   |   |  |
| Protocol:<br>Quality system:  | NA<br>NA   |   |  |

The report has been approved for issue by Mark Manito – Team Manager

This issue supersedes all previous issues. The amendment giving rise to this issue of the Report can be ascertained by contacting the authorizing signatory.

| Approved For Issue | Į.                            |
|--------------------|-------------------------------|
| An Av. I           |                               |
| 14- Masto          | Issue Date: 12 September 2017 |

## Objectives.

Direct test

## Product Scope.

PC 62-US-04

## Report Summary.

The samples were received on 25 July 2016 and the testing was started on 25 July 2016.

The samples submitted complied with the requirements of the test work conducted.

Page 2 of 15 making excellence a habit.



## Test Samples.

| Sample Id | ER Number   | Description               |
|-----------|-------------|---------------------------|
| 1         | PC 62-US-04 | Casement Inward Door Sash |

Description of Test Samples.

| Sample Description  |  |
|---|--|
| 1 off Main Profile(inc 1 off PAS 23 & PAS 24 door profile)                                |  |
| 4 off 250mm (+10/-10) lengths   |  |
| 2 off 200mm (+10/-10) lengths   |  |
| 12 off 300mm (+/-Smm) lengths   |  |
| 1 off 1000mm (+10/-10) lengths  |  |
| 10 off welded 90° corners with 500mm long legs "1" and "V" values for each welded profile |  |

Page 3 of 15 \_\_making excellence a habit.



## Test Requirements.

BS EN 12608 Direct

| Clause | Requirements   |                      |
|--------|--|----------------------|
| 5.     | Requirements   |                      |
| 5.1    | Materials  |                      |
| 5.1.3  | Material characteristics Vicat softening temperature Charpy Impact strength Flexural modulus of elasticity Tensile impact strength at 23 C | PASS<br>PASS<br>PASS |
| 5.2    | Appearance   | PASS                 |
| 5.3    | Dimensions and tolerances  |                      |
| 5.3.2  | Thickness of walls of main profile   | PASS                 |
| 5.3.3  | Tolerances on other dimensions   | PASS                 |
| 5.3.4  | Deviation from straightness of main profiles   | PASS                 |
| 5.4    | Mass of main profiles  | PASS                 |
| 5.5    | Heat reversion   | PASS                 |
| 5.6    | Resistance to impact of main profiles by falling mass  | PASS                 |
| 5.7    | Behaviour after heating at 150 C   | PASS                 |
| 5.8    | Weldability  | PASS                 |

Page 4 of 15 making excellence a habit.



## Glossary of Terms.

PASS: Complies. Tested by BSI engineers at BSI laboratories,

PASS1: Complies. Witnessed by BSI engineers in manufacturers laboratory. PASS2: Complies. Tests carried out by third party lab; results accepted by BSI.

PASS\*: Report resulted in uncertainty and states that Compliance is more probable than non-compliance.

FAIL: Non compliance - Product does not meet the requirements of this clause.

FAIL\*: Report resulted in uncertainty and states that Non-compliance is more probable than compliance.

N/A: Not applicable to design under consideration.

N/T: Not tested due to similarity to previously tested item; reference earlier test report.

### Conditions of Issue.

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## BS EN 12608 Direct

REQUIREMENTS

## Test Results.

### CLAUSE

| 5.1   | Materials   |           |        |            |
|-------|---|-----------|--------|------------|
| 5.1.3 | Physical Properties   |           |        |            |
|       | Material characteristics  |           |        |            |
|       |   | Specified | Actual | Assessment |
|       | Vicat softening temperature   |           |        |            |
|       | Annex A.4.1 (BS EN ISO 306:1997)  |           |        |            |
|       | Vicat softening temperature (°C) Sampler taken from profile PC 62-J IS-04 | 75 min    | 80.6   | Pass       |

| Vicat softening temperature               |          |        |      |
|---|----------|--------|------|
| Annex A.4.1 (85 EN 150 306:1997)          |          |        |      |
| Vicat softening temperature (°C)          | 75 min   | 80.6   | Pass |
| Samples taken from profile PC 62-US-04    |          |        |      |
| Charpy Impact strength                    |          |        |      |
| Annex A.4.2 (See BS EN ISO 179-2:1999)    |          |        |      |
| Arithmetic mean (kJ/m²)                   | 20 min   | 20.94  | Pass |
| Standard deviation (kJ/m²)                | 50       | 9.4    |      |
| Co-efficient of variation (%)             | *3       | 45.37  |      |
| Samples taken from profile PC 62-US-04    |          |        |      |
| Mean for 6 brittle (P) fractures          |          |        |      |
| Arithmetic mean (kl/m²)                   | 20 min   | 74.50  | Pass |
| Standard deviation (kJ/m²)                | *        | 2.58   |      |
| Co-efficient of variation (%)             | 20       | 3.46   |      |
| Samples taken from profile PC 62-US-04    |          |        |      |
| Mean for 4 ductile (P) fractures          |          |        |      |
| Flexural modulus of elasticity            |          |        |      |
| Annex A.4.3 (BS EN ISO 178:2003)          |          |        |      |
| Mean flexural modulus of elasticity (MPa) | 2200 min | 2967.5 | Pass |
| Samples taken from profile PC 62-US-04    |          |        |      |
| Tensile impact strength at 23°C           |          |        |      |
| Annex A.4.4 (BS EN ISO 8256:1997)         |          |        |      |
| Arithmetic mean (kJ/m²)                   | 600 min  | 664.30 | Pass |
| Standard deviation (kJ/m²)                | -        | 74.85  |      |
| Co-efficient of variation (%)             | 57       | 11.27  |      |
| Samples taken from profile PC 62-US-04    |          |        |      |
| -   |          |        |      |

Page 6 of 15 ....making excellence a habit.



## Test Results (Continued).

#### CLAUSE

5. REQUIREMENTS

#### 5.2 Appearance

The colour of the profiles shall be the same and uniform when viewed by normal vision or corrected vision at a range of 1m, in 45° north sky light viewing perpendicular to the surface in accordance with EN ISO 105-A01:1995 or with an equivalent artificial source of light. The surfaces of the profiles shall be smooth, flat and free from pitting, impurities, cavities and other surface defects. The edges of the profiles shall be clean and burr-free.

Profile code Assessment
PC 62-US-04 Pass

Page 7 of 15 ....making excellence a habit.



## Test Results (Continued).

#### CLAUSE

REQUIREMENTS (CONTINUED) 5.3 **Dimensions and tolerances** 

#### Nominal shape 5.3.1

The cross-section of the profiles shall conform to the nominal profile. The tolerances of the external dimensions of the profile with respect to the nominal profile shape shall be in accordance with Table 4

#### 5.3.2 Thickness of walls of main profile

The thickness of the walls of the main profile according to Figure 2 shall be declared by the manufacturer

#### 5.3.3 Tolerances on other dimensions

The critical dimensions of main profiles other than the thickness of the external walls and of auxiliary profiles as well as their tolerances shall be specified by the manufacturer

Profile code: PC 62-US-04

Class A

See drawing on page 14

Manufacturer's drawing number: None

Issue date: None

| Actual measurement (mm) | Assessment                       |
|-------------------------|----------------------------------|
| 61.99                   | Pass                             |
| 81.84                   | Pass                             |
| 82.03                   | Pass                             |
| 101.51                  | Pass                             |
| 3.01                    | Pass                             |
| 2,53                    | Pass                             |
|                         | 81.84<br>82.03<br>101.51<br>3.01 |

Page 8 of 15 making excellence a habit.



## Test Results (Continued).

#### CLAUSE

5. REQUIREMENTS (CONTINUED)

5.3 Dimensions and tolerances (Continued)

5.3.4 Deviation from straightness of main profiles

When measured in accordance with the method described in

Clause 6.2 the deviation from the straightness shall not be greater than 1mm for a length of 1m

| Profile code | Sight surface | Specified | Actual | Assessment |
|--------------|---------------|-----------|--------|------------|
| PC 62-US-04  | 1             | 1 max     | 0.13   | Pass       |
|              | 2             | 1 max     | 0.29   | Pass       |

Page 9 of 15 ....making excellence a habit,



## Test Results (Continued).

#### CLAUSE

REQUIREMENTS (CONTINUED)

#### 5.4 Mass of main profiles

When measured in accordance with the method described in Clause 6.3 the mass per metre length of main profiles shall not be less than 95% of the nominal mass per metre length

| Profile code | Specified (%) | Actual (%) | Assessment |
|--------------|---------------|------------|------------|
| PC 62-US-04  | 95 min        | 100.6      | Pass       |

...making excellence a habit. Page 10 of 15



## Test Results (Continued).

#### CLAUSE

5. REQUIREMENTS (CONTINUED)

5.5 Heat reversion

5.5.1 Main profile

When tested in accordance with BS EN 479:1999 for each test specimen the heat reversion of the two largest opposing sight surfaces shall not be greater than 2.0%

The difference in heat reversion for each test specimen between these sight surfaces shall not be greater than 0.4%

5.5.2 Auxiliary profiles

When tested in accordance with BS EN 479:1999 the heat reversion for each test specimen shall not be greater than 3.0%, for glazing beads used externally, a limit of 2% max is recommended.

#### Mean reversion

| Profile code | Actual value | Assessment |
|--------------|--------------|------------|
| PC 62-US-04  | 0.99         | Pass       |
|              | 1.01         | Pass       |
|              | 0.99         | Pass       |

#### Variation between sight surfaces

| Profile code | Sample code | Actual value |      |
|--------------|-------------|--------------|------|
| PC 62-US-04  | 1           | 0.17         | Pass |
|              | 2           | 0.02         | Pass |
|              | 3           | 0.05         | Pass |

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## Test Results (Continued).

#### CLAUSE

5. REQUIREMENTS (CONTINUED)

5.6 Resistance to impact of main profiles by falling mass

When main profiles are tested in accordance with BS EN 477:1999 for the appropriate classification no more than one test specimen shall show rupture in the wall

For coextruded profiles the delamination of the coextruded layer is also considered as

| Profile Codes | Class | Mass used<br>(g) | Drop<br>height (m) | Number<br>failures out of<br>10 |
|---------------|-------|------------------|--------------------|---------------------------------|
| PC 62-US-04   | 11    | 1000             | 1.5                | 0                               |

...making excellence a habit. Page 12 of 15



8572674-Test Report.

# Test Results (Continued).

# CLAUSE

REQUIREMENTS (CONTINUED) 5.

#### 5.7 Behaviour after heating at 150°C

When tested in accordance with BS EN 478:1999 the profiles shall show no defects. For coextruded profiles the delamination of the coextruded layer is also considered as failure

Profile code PC 62-US-04

#### Weldability 5.8

When tested in accordance with EN 514:2000, the mean weld failure stress shall not be less

than 25 MPa and no individual result shall fall below 20 MPa

| Profile code | I (mm°)   | V (mm) | Sample No | Stress (MPa) | Assessment |
|--------------|-----------|--------|-----------|--------------|------------|
| PC 62-US-04  | 472276.44 | 31.7   | 1         | 24.34        | Pass       |
|              |           |        | 2         | 25.27        | Pass       |
|              |           |        | 3         | 26.36        | Pass       |
|              |           |        | Mean      | 25.32        | Pass       |

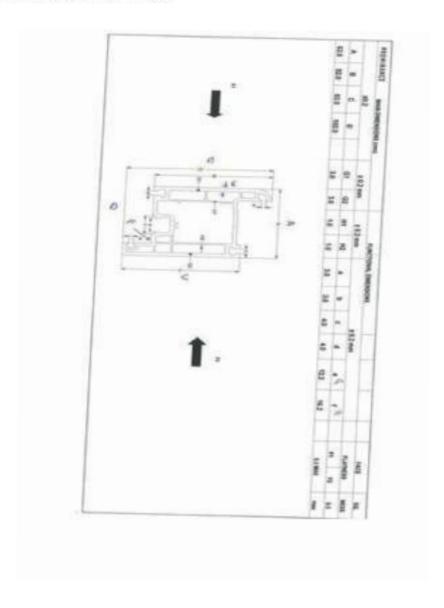
Note T and V values supplied by manufacturer.

Page 13 of 15 making excellence a habit



8572674-Test Report.

# Manufacturers Drawings.



Page 14 of 15 \_\_\_making excellence a habit.



8572674-Test Report.

# Photograph of Samples.



\*\*\*End of Report\*\*\*

Page 15 of 15 ...making excellence a habit.



Report No.: MAN:TR:7530011891

PROMINANCE uPVC PROFILES
CAPTIV FENESTRATION,S.F NO-207/18,1C, APPANAIKENPATTI, SULUR

COIMBATORE-641402

CONTACT PERSON : MR. DEVARAJAN

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS

SAMPLE DESCRIPTION QUOTE NO

uPVC PROFILE PC/290/1607/VD

COUNTRY OF ORIGIN

IND(A

SAMPLE RECD ON TEST(S) REQUESTED 09/08/2016 ROHS TEST TESTING PERIOD: 12/08/2016 - 16/08/2016

DATE: 19/08/2016

Test Requested

Selected test (s) as requested by client.

**Test Method** 

Please refer to next page(s).

Test Result(s)

Please refer to next page(s).

Conclusion

Based on the performed tests on selected part of submitted samples, the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II;

recasting 2002/95/EC.

Per Pro SGS India Pvt Ltd.

**Authorized Signatory** 

Kapil Patil

(Asst. Manager- Chemical)

Email your Test Report Related Enquiries at Feedback.HLT@sgs.com

JOE 841 | 9603062834 Page 1 of 7

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Wenter of the SSS Group (SSS SA)



Report No.: MAN:TR:7530011891

Test result ID for sample

Description for sample : uPVC PROFILE

1 7480011891

| Test Item(s):                 | Unit  | Test Method  | Results | MDL | Limit |
|-------------------------------|-------|--|---------|-----|-------|
| Cadmium(Cd)                   | mg/kg | With reference to IEC 62321-5:2013<br>(Determination of Cd by ICP-OES) | n.d.    | 5   | 100   |
| Lead (Pb)                     | mg/kg | With reference to IEC 62321-5:2013 (Determination of Pb by ICP-CES)    | n.d     | 5   | 1000  |
| Mercury (Hg)                  | mg/kg | With reference to IEC 62321-4:2013<br>(Determination of Hg by ICP-CES) | n.d.    | 5   | 1000  |
| Hexavalent Chromium<br>(CrVI) | mg/kg | With reference to IEC 623212008<br>(Determination of CrVI by UV-VIS)   | n.d.    | 2   | 1000  |
| Sum of PBBs                   | mg/kg | With reference to IEC 62321:2008.<br>(Determination of PBB by GC-MS)   | n.d.    | #1  | 1000  |
| Monobromobiphenyl             | mg/kg | With reference to IEC 62321:2008<br>(Determination of PBB by GC-MS)    | n.d.    | 50  |       |
| Dibromobiphenyl               | mg/kg | With reference to IEC 62321:2006<br>(Determination of PBB by GC-MS)    | n.d.    | 50  |       |
| Tribromobiphenyl              | mg/kg | With reference to IEC 62321:2006<br>(Determination of PBB by GC-MS)    | n.d.    | 50  | = 2   |
| Tetrabromobiphenyl            | mg/kg | With reference to IEC 62321:2008<br>(Determination of PBB by GC-MS)    | n.d.    | 50  | 3     |
| Hexabromobiphenyl             | mg/kg | With reference to IEC 62321:2008<br>(Determination of PBB by GC-MS)    | n.d.    | 50  | *     |
| Pentabromobiphenyl            | mg/kg | With reference to IEC 62321:2008<br>(Determination of PBB by GC-MS)    | n.d.    | 50  | -     |
| Heptabromobiphenyl            | mg/kg | With reference to IEC 62321:2006<br>(Determination of PBB by GC-MS)    | n.d.    | 50  | ÷     |
| Octabromobiphenyl             | mg/kg | With reference to IEC 62321:2006<br>(Determination of PBB by GC-MS)    | n.d.    | 60  | -     |
| Nonabromobiphenyl             | mg/kg | With reference to IEC 62321:2008                                       | n.d.    | 50  | =     |
|                               |       |  |         |     |       |

Page 2 of 7

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DATE: 19/08/2016



DATE: 19/08/2016 Report No.: MAN:TR:7530011891

| 9 9 9 9                       | 11 10 90 66 | 1111   |      |    |      |
|-------------------------------|-------------|--|------|----|------|
|                               |             | (Determination of PBB by GC-MS)  |      |    |      |
| Decabromobiphenyl             | mg/kg       | With reference to IEC 82321:2008<br>(Determination of PBB by GC-MS)    | n.d. | 50 |      |
| Sum of PBDEs                  | mg/kg       | With reference to IEC 62321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. |    | 1000 |
| Monobromodiphenyl ether       | mgikg       | With reference to IEC 62321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 | (6)  |
| Dibromodiphenyl ether         | mg/kg       | With reference to IEC 62321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 | (8)  |
| Tribromodiphenyl ether        | mg/kg       | With reference to IEC 82321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 | 0.60 |
| Tetrabromodiphenyl ether      | mg/kg       | With reference to IEC 82321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 |      |
| Pentabromodiphenyl ether      | mg/kg       | With reference to IEC 82321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 | 100  |
| Hexabromodiphenyl ether       | mg/kg       | With reference to IEC 62321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 |      |
| Heptabromodiphenyl ether      | mg/kg       | With reference to IEC 62321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 | (*)  |
| Octabromodiphenyl ether       | mg/kg       | With reference to IEC 82321 2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 |      |
| Nonabromodiphenyl ether       | mg/kg       | With reference to IEC 82321,2008.<br>(Determination of PBDEs by GC-MS) | n.d. | 50 | 4    |
| Decabromodiphenyl ether<br>## | mg/kg       | With reference to IEC 82321:2008<br>(Determination of PBDEs by GC-MS)  | n.d. | 50 |      |

# Note :-:

- (a) mg/kg = ppm ; 0.1wf% = 1000ppm
- (b) n.d.= not detected
- (c) MDL = Method Detection Limit
- (d) 88 The exemption of DecaBDC in polynemic application according 2005/717/EC was exempled by the European Court of Jordec by its decision of 01.04.2008, Subsequently DecaBDE is included in the user of PRDE after 01.07.2008.
- (e) = not regulated

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Page 3 of 7

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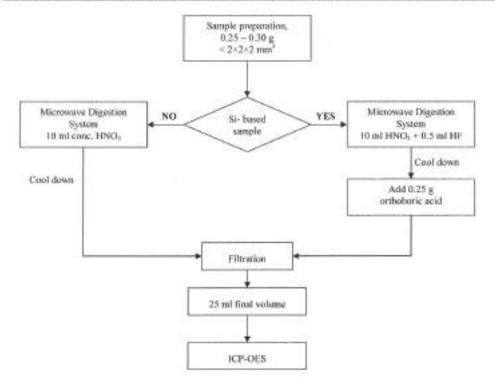
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Report No.: MAN:TR:7530011891  DATE: 19/08/2016

#### Process Flow for analysis of metal contents in plastics, metals and electronic components sample



Analyzed By: Suman Mandrwal

Checked By:Kapil Patil

Page 4 of 7 JOS 50- : 160 2010 PT 6 Control No. 75/89/19904

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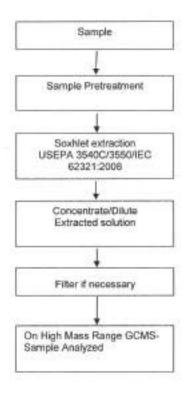
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Report No.: MAN:TR:7530011891  DATE: 19/08/2016

# Process Flow for analysis of Flame Retardants in plastics, metals and electronic components sample



Analyzed By: Suman Mandrwal

Checked By:Kapil Patil

JOE No. : 1813100014

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Unless otherwise stated the results shown in this test report lefter only to the sample(s) sected and such sample(s) we returned for 30 days only. This document cannot be reproduced except in full, without prior approach of the Company.

Transportation, Plot No. 21, Sector -3, IMT Manager, Pri-122050, Haryana, India. # : (91-124) 878 7600. Regd & Corp. DR.: SSS House, 48. A. S. Marg. Wilcoln (West), Murricol - 400 DB2 1; 1022) 6640 6866 8; (\$22) 6640 8828.

WWW.igs.com

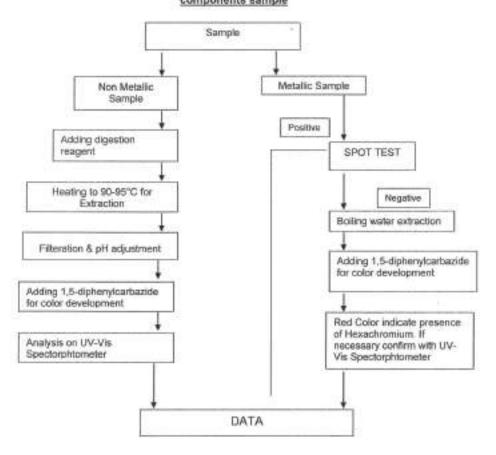
Moreor of the SGS (trace (\$45.5A)



Report No.: MAN:TR:7530011891 

DATE: 19/08/2016

# Process Flow for analysis of Hexavalent chromium contents in plastics, metals and electronic components sample



Analyzed By: Suman Mandrwal

Checked By:Kapil Patil

JOE No.: 1650083814

Page 6 of 7

Control Ro. 75/8079994

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Trut good from \$10 Trut good from \$10 Mo. 21, Sector -3, 1MT Mariesac, Phr 122050, Heryone, India: 1; (31-124) 678 7600 Regul # Carp. 01: 303 Risso, 48, A. S. Mary, Visinoi (Marie, Mariesa -400 MO + (22) 6043 888 6; (22) 5041 8621

WWW.EQS.COM

Venter if the SCS Slory (SCS SA)



Report No. : MAN:TR:7530011891

DATE: 19/08/2016

Sample Photo: as received



SGS authenticate the photo on original report only.

Note

Test performed as per the conditions given by the client. Above Test subcontracted to SGS approved lab.

\*\*\* End of Report \*\*\*

JOE No.: 1003003014

Page 7 of 7

Control Ro. 763601.0804

This observed is based by the Company under its General Conditions of Service printed ownheat or available on request and accessible as hill-privious special conditions, and conditions and Conditions for electronic documents wive aga confirming, and comments in drawn to the finite of facility, insternification and principles in these confined theses. Any holder of the document is advised that information contained force subjects the Company's Technique at the time contained force and this document does not execute parties to a transaction from electroning at their rights and obligations under the fundaction documents. Any unsufficient and otherwise may be proceeded to the fundaction of the land offeredom may be proceeded to the fundaction of the land offeredom may be proceeded to the fundaction of the land offeredom may be proceeded to the fundaction of the land offeredom may be proceeded to the fundaction of the company.

Unless otherwise stated the results shown in this test report refer only to the campaign lested and such company are retained for this days only. This document cannot be reproduced except to test eithout prior approval of the Company.

Transportation, Plot No. 21, Sector -3, IMT Manesot, Pre-122050, Horysta, Judia, ± 1 (91-124) 878 7805 Rogal & Cosp. DK: SES Hazas, 48, A. S. Merg, Widowi Wilest, Marchel -400 083 ± (02) 9540 8886 ± (02) 9540 6886

WWW.NGD.DET

Moreov of the SCO Group (SGS SA)

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंबीनियरिंग एण्ड टेक्नोलॉओ (स्थापन एवं उत्तीक शंबतन, भारत शरका) गिम्मी, येनी – 600 032, VPF : 22254701-06 10FFF : 91-44-22254707



# CENTRAL INSTITUTE OF PLASTICS **ENGINEERING & TECHNOLOGY**

(Ministry of Chemicals & Fartilizers, Govt. of India) Guindy, Chennal - 600 032 India. Tel: 22254701-06 Fax: 91 - 44 - 22254707 E-mail: chennal@cipet.gov.in Website: www.cipet.gov.in

## /SLNo. 10467

रिपोर्ट सं / REPORT NO. 51944

Pages.......Nos. Part A,B,C & D

form / Date :

27.10.2016

को जारी / Issued to :

Prominance uPVC Profiles. M/s. Captiv Fenestration, S.F.No.207/1B, 1C, Selekarachal Road, Appanaickenpatti, Sulur, Coimbatore - 641 402.

संदर्भ / Ref.

संदर्भ / Ref. : Dated: 15.10.2016 परीकृष मानक स्तर के अनुसार परीक्षण रिपेर्ट / TEST REPORT AS PER TEST STANDARD : Refer Part C

#### भाग - क / PART - A

# प्रस्तुत सेपिल का विकास / PARTICULARS OF SAMPLE SUBMITTED

मीपिल का जम / a) Name of the Sample 31)

**UPVC Profiles** 

-as stated by the party

सैपिल प्राप्त क्षेत्रे की वारीख / b) Date of Receipt of sample · 98) 18.10.2016

10) ths/switt/smitt/arf / c) Grade / variety / type / size / class Not applicable

4) घोषित पुस्प / d) Declared value, if any Not applicable

with 14. (e) Code No. 33 F - PC62US04

조) बैच सं. एवं निर्माण सार्वेख / f) Batch No. and Date of Manufacture: Not applicable

माम / g) Quantity **(4)** 2 No/8

पेक्षिण की रीति / h) Mode of Packing 4) Packed in carton pack

ψ̈) मोहर भेद या पहीं / i) Sealed or not Not Sealed

असे) कोई अन्य मुखवा/j) Any other information

NIT - W / PART - B

#### अभूगक म्चवर्गे / SUPPLEMENTARY INFORMATIONS

अ) सैचितिय कार्यवाहियों हेतु संदर्भ / a) Reference to sampling procedure

: Sampling not done by this lab

माप करने हेर्न सिए लए सहायक दस्तावेज एवं प्राप्त चरिणाम

b) Supporting documents for the measurement taken and result derived

: As given in Part C

इ) संबंधित कार्य अनुदेशों में निर्धारित को अनुसार परीक्षण दीति थे बोई परिवर्तन

c) Deviation from the test method as prescribed in relevant work instructions, if any : No deviation from the standard

10,001 to 12,500 / AVP / 12.4.2016

1 of 3

संन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंबोनियरिंग एण्ड टेक्नोलॉजी (रहारम वर्ष अर्थिक संस्तान, भारत कारबार) रिच्ची, सेमी – ४४० ४३२, परेन : 22254701-06 सेन्सा : 91-44-22254707

परीक्षण रिपोर्ट **TEST REPORT** 

### CENTRAL INSTITUTE OF PLASTICS **ENGINEERING & TECHNOLOGY**

(Ministry of Chemicals & Fertilizers, Govt. of India) Quindy, Channal - 600 032, India. Tel: 22254701-06 Fax: 91 - 44 - 22254707 E-mail: chennal@olpet.gov.in Website: www.cipet.gov.in

歌.村/SL No.

10467

रिपोर्ट सं / REPORT NO. : 51944

दिनाक / Date :

27.10.2016

भाग - ग / PART - C परीक्षण परिणाम / TEST RESULTS

Test Duration: 18.10.2016 to 27.10.2016

| SI.<br>Vo. | Property     | Standard | Unit | Results<br>Obtained |
|------------|--------------|----------|------|---------------------|
| 1.         | Flammability | UL94     |      | Vo                  |

#### PART - D

REMARKS - NII NOTE:

- 1. The results related only to the items tested as supplied by the party.
- 2. The test certificate shall not be reproduced in full except without the written approval of the laboratory.

2 of 2

10,001 to 12,500 / AVP / 12.4.2016

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नमेलॉजी (काक्स एवं ऑक्स पंकाल, मार्ग्स मार्ग्स) रिमरी, चर्ने - 400 002 चर्मा: 22254701-08 चंक्स : 91-44-22254707



ENGINEERING & TECHNOLOGY

(Ministry of Chemicals & Fertilizers, Govt. of India)

Guindy, Chemia - 800 032, India.

Guindy, Chennai - 800 032 India. Tel : 22254701-08 Fax : 91 - 44 : 22254707 E-mail : chennei@ciper.gov.in Website : www.ciper.gov.in

CENTRAL INSTITUTE OF PLASTICS

WH / SI. No. 12687

रिपोर्ट सं / REPORT NO. : 53643

रिनक / Date : 12<sup>th</sup> May, 2017

को जारी / Issued to 1

M/s.Captiv Fenestration,

Prominance UPVC Profiles, SF.No.2017/1B & 1C, Selakarachal Road, Appanaickenpatti, Sulur, Coimbators - 541 402

Sulur, Coimbatore - 641 402.

icsf / Ref. : Dt.:27.04.2017

परीक्षण मानक स्तर के अनुसार परीक्षण रिपोर्ट । TEST REPORT AS PER TEST STANDARD : Refer Part C

# भाग - क / PART - A

TEST REPORT

# प्रस्तुत सेपिल का विकास / PARTICULARS OF SAMPLE SUBMITTED

श्रीस्त का अप / a) Name of the Sample
 Prominance UPVC Profile

-as stated by the party

'sa) सैंपिस प्राप्त शेने भी सारीम / b) Date of Receipt of sample : 01.05.2017

ছ) উত্তৰভাৱ/ভার/ভার/c) Grade / variety / type / size / class : Not applicable

f) भौतिक भून / d) Declared value, If any : Not applicable

8) 南京 H./e) Code No. LOI1

ফ) सैच सं. एवं নিৰ্দাণ কাইঅ/f) Batch No. and Date of Manufacture: Not applicable

ार) माल / g) Quantity 01 Sample

ए) वेरिका वर्ड विकि / h) Mode of Packing : Packed in polythene cover

पे) मोतर बंद या नहीं / i) Sealed or not : Not Sealed

मो) कोई अन्य मूचना/j) Any other information : ....

VIPI - W / PART - B

#### अनुपूरक सूचनएँ / SUPPLEMENTARY INFORMATIONS

म) सैचितिय कार्यवाहियों (तु संदर्ध / a) Reference to sampling procedure : Sampling not done by this lab

आ) साप करने हेर्ग लिए गए सहस्त्रक दस्तानेज एवं तथा परिणाम

b) Supporting documents for the measure ment taken and result derived : As given in Part C

संबंधित करम् अनुदेशों में निर्धारित के अनुसार कि रीति से कोई परिवर्तन

c) Deviation from the test method as prescribed in relevant work instructions, if any : No deviation from the standard

1.2501 to 15000 / AVP / 09.03.2017 1.0f 2

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिकस इंबीनियरिंग एण्ड टेक्नोलॉबी (प्रमान को उन्हेंक पेकार, पात सन्हर) राज्यों, समें - 600 200 WH : 22254701-06 WWW : 91-44-22254707





# CENTRAL INSTITUTE OF PLASTICS **ENGINEERING & TECHNOLOGY**

(Ministry of Chemicals & Fertilizers, Govt. of India) Guindy, Chennai - 600 052, India. Tel : 22254701-05 Fax : 91 - 44 - 22254707 E-mail : chemai@cipet.gov.in Webste : www.cipet.gov.in

रिपोर्ट सं / REPORT NO. 1

परीक्षण रिपोर्ट 53643 TEST REPORT

दिनाम / Date :

12.05.2017

T. H / SI. No. 12687

भाग - ग / PART - C

परीक्षण परिणाम / TEST RESULTS

Test Duration: 01.05.2017 to 12.05.2017

| SI.<br>No. | Property              | Standard    | Unit | Results obtained |
|------------|-----------------------|-------------|------|------------------|
| 1.         | Limiting oxygen index | ASTM D 2863 | %    | 47.0             |

#### PART - D

#### REMARKS - NII

#### NOTE:

- 1. The results related only to the items tested as supplied by the party.
- 2. The test certificate shall not be reproduced in full except without the written approval of the laboratory.

2 of 2

12501 to 15000 / AVP / 89,00,2017

सेन्ट्ल इस्टिट्यूट ऑफ प्लास्टिक्स इंबोनियरिंग एवड टेक्-बेलॉजी (काम एवं ऑफ पंतान, चान कामा) मिन्टी, वर्न - 600 032, कोन : 22254701-05 फैना : 91-44-22254707



को नारी / Issued to :

M/s. Prominance uPVC Profiles, Captiv, Fenestration, S.F.No 207/1B, 1C, Selekarchal Road, Appanaickenpatti, Sulur, Coimbatore – 641 402.

संदर्भ / Ref. : Dated: Nil

परिवाण भागक स्तर के अनुसार परिवाण रिपोर्ट / TEST REPORT AS PER TEST STANDARD : Refer Part C

# प्ला - क / PART - A

### THEY REST BY FORTH / PARTICULARS OF SAMPLE SUBMITTED

अ) सैरिल का जम / a) Name of the Sample

1) Profile Frame, Sash, Mullion

CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

(Ministry of Chemicals & Fertilizers, Govt. of India)

Part A.B.C & D

08.09.2016

Outndy, Chennal - 600 032, India. Tol: 22254701-06 Fax: 91 - 44 - 22254707 E-mail: chennal@opet.gov.in Website: www.opet.gov.in

रिपोर्ट में / REPORT NO. 151393

W. M/SL No. 9991

Pages 4 Nos

दिनक / Date :

 Compounded Material -as stated by the party

an) सीरेल प्राप्त होने भी करीक / b) Date of Receipt of sample

16.08.2016

হ) ষ্ঠাত প্ৰকাশ / জাকাশ / বা / C) Grade / variety / type / size / class

Not applicable

ई) भोतिक कृत्य / d) Declared value, if any

Not applicable

図 事体 ま/el Code No.

Not applicable

क) वीम भी, पूर्व निमाण वातीया / f) Batch No. and Date of Manufacture:

Not applicable

w() war / g) Quantity

01 Box

श्) वेशिका की वीति / h) Mode of Packing

Packed in carton box

t) मोहर चंद या नहीं / i) Sealed or not

Not Sealed

ओ) कोई अन्य सूचन/jj Any other information

#### RH - H / PART - B

#### असुरक स्वार्गे / SUPPLEMENTARY INFORMATIONS

अ) वैधिनिंग कार्यवाहियाँ हेतु चंदर्च / a) Reference to sampling procedure

Sampling not done by this lab

आ). याथ करने हेर्न तिए गए सहायक रस्तावेज एवं प्राप्त परिणाय

b) Supporting documents for the measurement taken and result derived

: As given in Part C

इ) इंक्रॉयल कार्य अनुदेशों में निर्धारित के अनुसार परीक्षण रीति से कोई परिवर्तन

c) Deviation from the test method as prescribed in relevant work instructions, if any : No deviation from the standard

7501 to 10,000 ( AVP / 18,02,2016

1 of 4

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंबोनियरिंग एवड टेक्-बेलॉबी (१६६० वर्ष अंक पंत्रका, चार शकर) रेक्यो, क्ये - ६०० ०००. पंत्र : 22254701-06 फेक्च : 81-44-22254707



# CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

(Ministry of Chemicals & Fertilizers, Govt. of India) Guindy, Chennal - 600 032, India. TM : 22254701-06 Fax: 91 - 44 - 22254707 E-meil : chennel@cipet.gov.in Website : www.cipet.gov.in

रिपोर्ट सं / REPORT NO. : 51393

08.09.2016 Regis / Date :

東村 / SI. No. 9991

भाग - ग / PART - C परीक्षण परिजाम /TEST RESULTS

Test Duration: 17.08.2016 to 08.09.2016

| SI. | Property | Standard      | Unit |         | tesuits<br>btained |
|-----|----------|---------------|------|---------|--------------------|
| No  |          |               |      | Profile | PVC Compound       |
| 1.  | Density  | ASTM D<br>792 | g/cc | 1.46    | 1.44               |

Contd...

2 of 4

7501 to 10,000 / AVP / 18,02,2016





Continuation Sheet

Report No:

51393

**TEST RESULTS** 

Date: 08.09.2016

| SI. No    | Property   | Standard       | Unit | Results<br>Obtained |
|-----------|--|----------------|------|---------------------|
| TOTAL NAT |  |                |      | Profile             |
| 1.        | Thermal Conductivity<br>at 55°C Mean Temperature | ASTM<br>E-1530 | W/mk | 0.137               |

Contd....

NA hantens

3 of 4





Continuation Sheet

Report No:

51393

# **TEST RESULTS**

Date: 08.09.2016

| SI. No | Property   | Standard       | - Unit | Results<br>Obtained |
|--------|--|----------------|--------|---------------------|
|        |  |                |        | PVC Compound        |
| 1.     | Thermal Conductivity<br>at 55°C Mean Temperature | ASTM<br>E-1530 | Wimk   | 0.165               |

# PART - D

### REMARKS - NII NOTE:

- 1. The results related only to the items tested as supplied by the party.
- 2. The test certificate shall not be reproduced in full except without the written appro, al of the laboratory.

4014

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी (श्वाप १४ ऑफ पंडसप, गाव सम्बर) रुवे, चेन - 600 333. चंत्र : 22254701-06 पंडम : 91-44-22254707





परीक्षण रिपोर्ट TEST REPORT

को जारी / Issued to : TEST RE M/s. Prominance, Captiv Fenestration, Appanaikenpatti, Sulur, SF No:207/1B, 1C,

Coimbatore - 641 402, Tamil Nadu. CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY (Ministry of Chemicals & Fertilizers, Govt. of India)

(Ministry of Chemicals & Fertilizers, Govt. of India)
Guindy, Chemnel - 600 032. India.
Tai: 22254701-06 Pax: 91 - 44 - 22254707
E-mail: chemnel@cipet.gov.in Website: sww.cipet.gov.in

ET / Sl. No.

8630

50307

रिपोर्ट सं / REPORT NO. : Pages... 2.... Nos. Par

Part A.B.C & D

दिशक / Date :

09th May, 2016

संदर्भ / Ref. :Letter dtd: 01.04.2016

परीक्षण मानक स्तर के अनुसार परीक्षण रिपोर्ट / TEST REPORT AS PER TEST STANDARD : Refer Part C

### भाग - क / PART - A

# प्रश्रुत सैपिल का विकास / PARTICULARS OF SAMPLE SUBMITTED

अ) भीषत का नाम / a) Name of the Sample

UPVC Profile samples
 as stated by the party

आ) भीतिम प्राप्त होने की तारीख / b) Date of Receipt of sample

04.04.2016

इ) डेड/प्रकार/जान / c) Grade / variety / type / size / class

Not applicable

र्श) भोल्लि मूल्प / d) Declared value, if any

Not applicable

a) wits च. / e) Code No.

Not applicable

क) वैच इं. एवं निर्माण रागीका/f) Batch No. and Date of Manufacture:

Not applicable

ne() rene / g) Quantity

2 Bundle

ए) पेकिंग की रीति / h) Mode of Packing

Covered in Poly bag

t) मोहर मेर मा मार्ग / i) Sealed or not

Not Sealed

अंद्र) कोई अन्य सूचना / j) Any other information

2 2

#### HTT - TI / PART - B

## अनुपुरकः सूचनाएँ / SUPPLEMENTARY INFORMATIONS

at) सीपिलिंग कार्यवाहियों हेतु संरथ / a) Reference to sampling procedure

: Sampling not done by this lab

se) बाद करने हेर्ज लिए गए सहायक दस्तावेज एवं प्राप्त परिणाम

b) Supporting documents for the measurement taken and result derived

: As given in Part C

इंब्डिंग्स कार्य अनुदेशों में निर्धारित के अनुसार परीक्षण चैंति से कोई परिवर्तन

Deviation from the test method as prescribed in relevant work instructions, if any: No deviation from the standard

7501 to 10,000 / AVP / 18.02.2015

1012

सेन्ट्रल ईस्टिट्यूट ऑफ एलास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी (खक से जेक मेकल, पाय शक्त) रिप्टी, केर्न - 600 032. पोग: 22254701-06 र्चक्य: 91-44-22254707



#### CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

(Ministry of Chernicals & Fertilizate, Govt. of India)
Guindy, Chenna - 600 032, India,
Tel : 22254701-06 Fax : 91 - 44 - 22254707
E-mail : chernol@clost.gov.in Website : www.dpet.gov.in

#1.4 / SI. No. 8630

रिपोर्ट सं / REPORT NO. : 50307

ferrer / Date: 09.05.2016

भाग - ग / PART - C

परीक्षण परिणाम / TEST RESULTS

Test Duration: 05.04.2016 to 09.05.2016

| SI. | Property   | Standard   | Unit  | Results Obtained  |
|-----|--|------------|-------|---|
| 1.  | Heat reversion   | EN 479     | %     | 1.89  |
| 2.  | Behaviour after heating<br>@ 150°C   | EN 478     | 9.0   | No defects and no<br>delaminations are<br>observed visually |
| 3.  | Resistance to Impact by falling<br>mass<br>Height: 1500.0mm<br>Weight: 1000.0g | EN 477     | Sz    | No failure  |
| 4,  | Vicat softening temperature<br>Method B @ 5kg load                             | ISO 306    | 'c    | 87.0  |
| 5.  | Flexural strength<br>@ 1.4mm/min   | ASTM D 790 | MPa   | 74.58   |
| 6.  | Flexural modulus<br>@ 1.4mm/min  | ASTM D 790 | MPa   | 3193.6  |
| 7.  | Tensile strength<br>@ 50mm/min   | ASTM D 638 | MPa   | 42.93   |
| 8.  | Elongation at Break  | ASTM D 638 | %     | 15.69   |
| 9.  | Charpy Impact strength<br>(Notched)  | ASTM D 256 | KJ/m² | No break @ 111.75   |

#### PART - D

REMARKS - Nil

NOTE:

- The results related only to the items tested as supplied by the party.
- The test certificate shall not be reproduced in full except without the written approval of the laboratory.

7501 to 10,000 / AVP / 18.02.2016

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी (सबका वर्ष वर्षरक वंश्वलक, भारत सरकार). विकास केनी - 600 (332)

WR : 22254701-06 \$FH : 91-44-22254707

परीक्षण रिपोर्ट TEST REPORT CENTRAL INSTITUTE OF PLASTICS **ENGINEERING & TECHNOLOGY** 

(Ministry of Chemicale & Fertifizers, Govt. of India) Guindy, Chennel - 600 032 India. Tel: 22254701-06 Fax: 91 - 44 - 22254707 E-mail: chennai@cipst.gov.in Website: www.cipet.gov.in

\*# / SI. No. 12958

53900

रिपोर्ट सं / REPORT NO. :

Pages Nos.

Part A,B,C & D 05.06.2017

作物 / Date:

को जारी / Issued to :

M/s. Captiv Fenestration, SF.No. 207/1B & 1C, Selakarachal Road Appanaickenpatti, Sulur, Coimbatore - 641 402.

संदर्भ / Ref. :

Dated: 23.05.2017

परीक्षण मानक स्तर के अनुसार परीक्षण रिपोर्ट / TEST REPORT AS PER TEST STANDARD : Refer Part C

पाग - क / PART - A

प्रस्तुर गेपिल का विवरण / PARTICULARS OF SAMPLE SUBMITTED

सैपिल का अम / a) Name of the Sample 38)

Profile sample -as stated by the party

सैपिल प्रापा होने को तारीख / b) Date of Receipt of sample 26.05.2017 確認

क्रिद्र/क्रमार/अस्मार/कर्ग / c) Grade / variety / type / size / diass Not applicable 13

 Not applicable घोषित मृत्य / d) Declared value, if any \$1

Not applicable कोट सं. / e) Code No. ਰ)

Not applicable केव चं. एवं नियमि वारीख / f) Batch No. and Date of Manufacture:

01 Sample मात्र / g) Quantity 宋)

Covered polythene cover पेकिन को रीहि / h) Mode of Packing 4)

ŧ) मोहर चंद या नहीं / i) Sealed or not Not Sealed

क्षेत्रं अन्य सूचन / j) Any other information

TITT - E / PART - B

### अनुपूकः मूचनाएँ / SUPPLEMENTARY INFORMATIONS

सैपिलिंग कार्यवाहियों हेतु संरर्प / a) Reference to sampling procedure

: Sampling not done by this lab

माप करने हेर्त लिए गए सहायक दस्तायंत्र एवं प्राप्त परिणाम

Supporting documents for the measurement taken and result derived : As given in Part C

इंग्रेबॅच्लि बार्च अनुदेशों में निवासित को अनुसार परीक्षण रीति से कोई परिवर्तन

Deviation from the test method as prescribed in relevant work instructions, if any : No deviation from the standard (0)

12501 to 15000 / AVP / 09.03.2017

1 of 7

संन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंबीनियरिंग एण्ड टेक्नोलॉबी (१९४० १६) अंदिक नेकाल, पारा भारता) नेकदी, येलें - 600 002. पंतर : 22254701-06 पंतरम : 91-44-22254707



#### CENTRAL INSTITUTE OF PLASTICS **ENGINEERING & TECHNOLOGY**

(Ministry of Chemicals & Fertilizers, Govt. of India) Guindy, Cheensi - 600.032 India. Tal : 22254701-06 Fax : 01 - 44 - 22254707 E-mail : chemal@cipet.govin Website : www.cipet.govin

रिपोर्ट सं / REPORT NO. : 53900

क्र.सं / SL No. 12958

दिनार / Date :

05.06.2017

भाग - ग / PART - C

परीक्षण परिणाम / TEST RESULTS

Test Duration: 29.05.2017 to 05.06.2017

| SI.<br>No | Property  | Standard      | Unit | Results<br>Obtained   |
|-----------|---|---------------|------|-----------------------|
| 1.        | Co-efficient of linear<br>thermal expansion<br>(30 to 60°C) | ASTM<br>D 696 | r°C  | 3.82X10 <sup>-6</sup> |

# PART - D

REMARKS - NII

NOTE:

- The results related only to the items tested as supplied by the party.
- 2. The test certificate shall not be reproduced in full except without the written approval of the laboratory.

2 of 9

12501 to 15000 / AVP / 09:03:2017

सेन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉबी (रहाक्त एवं उर्वरक मेक्सल, चारा सरकार) 800 610. 189 : 22254701-05 flats : 91-44-22254707





परीक्षण रिपोर्ट **TEST REPORT** 

को जारी / Issued to :

M/s. Captiv Fenestration,

Prominance UPVC Profiles, SF.No.207/1B & 1C,

Selakarachal Road, Appanalckenpatti,

Sulur, Coimbatore - 641 402. संदर्भ / Ref. Dt.:24.10.2017

परीक्षण मानक रतर के अनुसार परीक्षण रिपोर्ट / TEST REPORT AS PER TEST STANDARD ; Refer Part C

भाग - क / PART - A

प्रस्तुत सैपिल का विवरण / PARTICULARS OF SAMPLE SUBMITTED

सींनल का नम / a) Name of the Sample **部**) UPVC Profile

-as stated by the party

CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY

ER / SL No. 14615

दिवक / Date :

(Ministry of Chemicals & Fertilizers, Govt. of India)

Part A, B, C & D

14,11,2017

Guindy, Chennal - 600 032, India. Tel : 22254701-96, Fax : 81 - 44 - 22254707 E-mail : chennel@cipet.gov.in Webelte : www.cipet.gov.in

रियोर्ट से / REPORT NO. 55229

सैरिया प्राप्त क्षेत्र भी सालिक / b) Date of Receipt of sample HI) 25.10.2017

W. the/swire/seritr/शर्ग / c) Grade / variety / type / size / class Not applicable

Not applicable 1) घोषित पून्य / d) Declared value, if any

मोड मी. / e) Code No. HS-01 ਰ)

품) बैच सं. एवं निर्माण नारीख / f) Batch No. and Date of Manufacture: Not applicable

30) मामा / g) Quantity 01 Sample

गेबिंग की गीत / h) Mode of Packing T Packed in woven sack

 $\dot{\eta}$ मोहर बंद वा नहीं / i) Seeled or not Not Sealed

नों) कार्र जन्य सूचना / j) Any other information

भाग - ख / PART - B

#### अनुपूरक सूचनाएँ / SUPPLEMENTARY INFORMATIONS

वीपितिम कार्यक्रीको केंद्र संदर्भ / a) Reference to sampling procedure

: Sampling not done by this lab

माप करने हेर्न लिए गए सहायक दस्ताबंध एवं प्राप्त परिणाम

Supporting documents for the measurement taken and result. derived

: As given in Part C

संबंधित कार्व अनुदेशों में निवारित के अनुसार परीक्षण रीति से कोई परिवर्तन

c) Deviation from the test method as prescribed in relevant work instructions, if any : No deviation from the standard

12501 to 15000 / AVP / 69 03 2017

1 01 9

संन्ट्रल इंस्टिट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी (जान एवं ऑफ मेकल्प, थात ग्राहा) रेच्या, पंने - 600 082. रंग : 22254701-06 र्चमा : 91-44-22254707





**TEST REPORT** 

# CENTRAL INSTITUTE OF PLASTICS **ENGINEERING & TECHNOLOGY**

(Ministry of Chemicals & Fertilizers, Govt. of India) Guindy, Chennai - 600 032 India. Tal : 22254701-06 Fax: 91 - 44 - 22254707 E-mail : chennai@cipet.gov.in Viebsite : www.cipet.gov.in

रिपोर्ट सं / REPORT NO. :

95.4 / SI, No. 14615

form / Date:

14.11.2017

भाग - ग / PART - C

परीक्षण परिणाम / TEST RESULTS

Test Duration: 25.10.2017 to 14.11.2017

| SI.<br>No. | Property  | Standard | Unit | Results obtained                            |
|------------|---|----------|------|---|
| 1.         | Heat Stability Test*<br>(Condition - 200°C for 30min) | 1000     |      | No significant colour<br>change is observed |

#### \*Note

Heat stability test was carried out by using glass tube, thermostatically controlled heating method maintained at 200°C for 30 minutes using universal indicating paper with PH 1 to 10.

# PART - D

REMARKS - NII

#### NOTE:

- 1. The results related only to the items tosted as supplied by the party.
- 2. The test certificate shall not be reproduced in full except without the written approval of the laboratory.

2 of 2.

12501 to 15000 / AVP / 09:03:2017