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Efectis Nederland report

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**Reaction to fire and smoke production of extruded
PVC window- and door profiles according to NEN
6065:1997 en NEN 6066:1997**

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Product identification:

Extruded PVC 7057 (T-profile), color white, further referred to as ‘the product’.

Abstract:

Examination on the contribution to fire propagation according to the Dutch NEN 6065: 1997 and smoke production during fire according to NEN 6066: 1997.

Intended application:

The product will be used as window- and doorframes.

Manufacturer/importer:

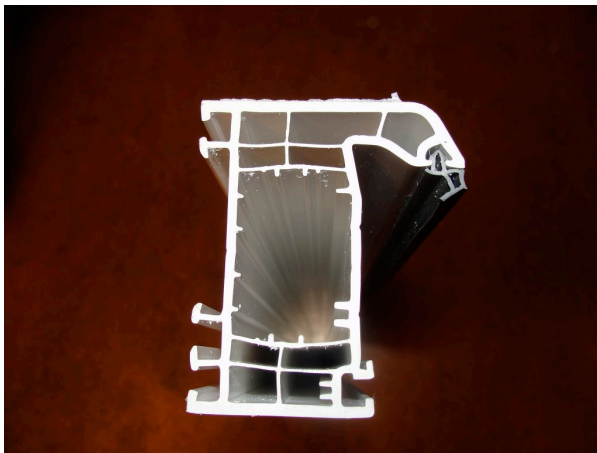
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Küçücek beldesi
Akyazı / ADAPAZARI
Turkey

Product description:

According to the sponsor the product 7057 (T-profile) is composed of PVC (Asas 001 Pb) PVC based profile made by mixing of 5 raw materials (PVC, stabiliser, impact modifier, filler and titanium dioxide).

Production method is extrusion.

The product has a total thickness of 70 mm and a mass per unit area of approx 13.1 kg/m² and 2.1 kg/m.



Samples:

Sampling procedure: The samples were prepared and submitted by the sponsor.

Age: 6 weeks at the time of receipt: no information received.

Date of receipt: 26 May 2011

Specimen preparation:

Substrate used: Promatect-H - 12 mm non-combustible (class A1/A2 according to NEN 6065 and NEN 6066).

Conditioning:

Prior to the examinations, the specimens were conditioned over a period of two weeks at a temperature of (23 ± 2) °C and a relative humidity of (50 ± 5) % according to § 4.1 of EN 13238.

Examination:

Date: June 17, 2011

Method of mounting and fixing: The profiles were positioned with an air gap against a calcium silicate board according to paragraph 5.2.5e of NEN 6065 and directly against a fibre cement board according to paragraph 5.2.3b of NEN 6066.

Number of tests: A total of six surface spread of flame tests were carried out, all in accordance with NEN 6065 and six smoke density tests in accordance with NEN 6066.

Deviations from the test method: None

Test results

Table1: Surface spread of flame - NEN 6065

Sample number	Surface spread of flame [mm]	
	The first 1½ minutes	10 minuten
1	60	320
2	40	350
3	80	300
4	40	320
5	50	350
6	60	320
Average	55	327

Table 2: Smoke density – NEN 6066

Test	Thermal irradiance	Maximum smokedensity D _{L,max}		Time of D _{L,max}
		per proef	maatgevend	
	kW/m ²	m ⁻¹	m ⁻¹	min
1	20	2,3		20
2	30	4,0		11¼
3	40	8,2		7
4	50 normative	9,3	9.6	4 ¾
5		9,4		6
6		10,2		4 ¾

Observations of physical behaviour of the test specimen: None

Assessment of the material:

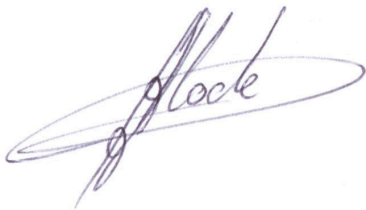
Based on the test results it is concluded that the examined **PVC 7057 extruded window- and door profiles**, with a mass per unit area of approx. 13.1 kg/m^2 and a total thickness of 70 mm comply with the basic requirements for

Class 4 of the surface flame spread according to NEN 6065:1997 and a

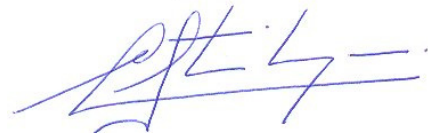
Smoke density according to NEN 6066:1997: $\bar{D}_{L;h;\max} = 9.6 \text{ m}^{-1}$.

Remarks:

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.



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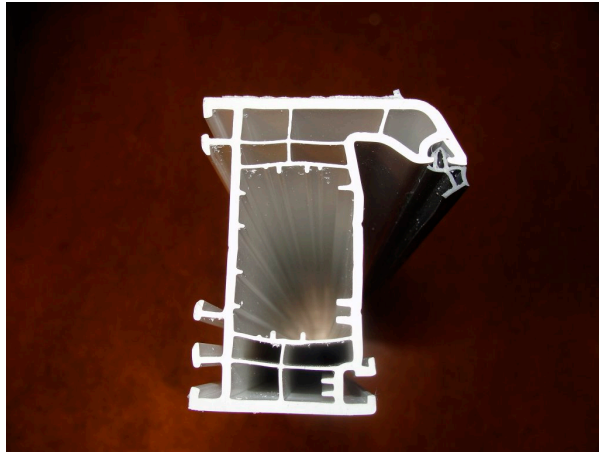


Photo 1: Cross-section of the product



Photo 2: Top side of the product



Photo 3: Front side of the product



Photo 4: Back side of the product



Photo 5: Bottom side of the product