

## OPTI-PREN™ HFFR 7300-82

### Product description

A soft, colorable, highly flexible halogen-free flame-retardant thermoplastic elastomer (TPE). Mainly designed for extrusion of cable insulation and jacketing, it can be further cross-linked to improve properties using electron beam (EB) irradiation. It can be processed on conventional thermoplastics equipment for extrusion. This grade of Opti-Pren HFFR is polyolefin-based and completely recyclable.

Physical properties	Value <sup>1</sup> (SI)	Test
Density	1.54g/cm <sup>3</sup>	ISO 1183
Appearance	Pellets	
Shore Hardness (15sec at 23°C)	87A	ISO 868-85

Mechanical properties	Value <sup>1,2</sup> (SI)	Test
Stress at 20% elongation	3.7MPa	ISO 37-1
Tensile strength	10.4MPa	ISO 37-1
Elongation at break	190%	ISO 37-1
Tear strength	5kN/m	ISO 34/1-94, A ("trouser")
Elasticity (1mm/m)	26MPa	DIN 53457
Low temperature brittle point	≤ - 56°C	ISO 812-68

<sup>1</sup> Values listed here are typical averages and should not be taken as our Product Specification

<sup>2</sup> Mechanical properties measured extruded flat strips (Brabender - Compression ratio: 2/1)

Flame Properties	Typical Value (SI)	Test
Flammability, Limiting Oxygen Index (LOI)	36.0%	ASTM D 2863A

Corrosivity Properties	Typical Value (SI)	Test
pH	4.61	IEC 60754-2
Conductivity	9.8μS/cm	IEC 60754-2

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## Processing Information

Desiccant drying for 3 hours at 60-70°C is recommended. Opti-Pren HFFR processes well on extruders designed for highly filled halogen-free flame-retardant compounds. Parts have a smooth, non-sticky surface. Extruders of 15 to 25 L/D ratio with low shear screws, having a compression ratio of maximum 2:1, are preferred for high output rates and low heat generation. Due to the high filler content and rubberlike nature, high amperage levels are expected. A powerful drive is recommended for maximum output. If used for regrind, use 70°C for 4 hours. Purge using LDPE. *Note that this grade is incompatible with acetal and PVC.*

	Temperature (°C)
Feed Zone	135 to 140°C
Transition Zone	150 to 160°C
Die	170 to 175°C
Melt - important	No more than 180°C at die exit

## Additional Information

Compliant to Directive 2003/11/EC, relating to restrictions on the marketing and use of certain dangerous substances and preparations, specifically pentabromodiphenyl ether or octabromodiphenyl ether.

RoHS2 (Directive 2011/65/EU) Compliant.

## Storage

Store in dry conditions since material is moisture sensitive. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed.

## Contact information

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10 May 2020