

DuPont™ Entira™ HPE 100

Entira™ HPE resins Product Data Sheet

Description

Product Description Entira™ HPE 100 resin is a rubbery ethylene copolymer based material showing high chemical resistance, temperature resistance (when crosslinked) and flexibility at low temperatures.

Entira™ HPE elastomers are typically used as the base polymer for a thermoset elastomer compound.

Restrictions

Material Status Developmental: Active

Typical Characteristics

Composition Proprietary Compound

Characteristics / Benefits Compounds made from Entira™ HPE normally use a peroxide curing system and can develop good properties only after a cure step. Alternatively they can be crosslinked through exposure to electron beams.

Applications Wire & Cable: example uses; offshore, nuclear power plants, windmills, ships & marine, buildings. and other demanding environments.

Also for use in: foams, footwear, polymer modification, adhesives, automotive under-the-hood and textile coating

Typical Properties

Physical	Nominal Values	Test Method(s)
*Density ()	0.98 g/cm ³	ASTM D792
*Melt Flow Rate (190°C/2.16kg)	6.6 g/10 min	ASTM D1238
Mooney Viscosity ML (1+4) 100°C (units MU)	15	ASTM D1646
Thermal	Nominal Values	Test Method(s)
*Melting Point (DSC)	49 °C (120.2 °F)	ASTM D3418
*Glass Transition Temperature ()	-29 °C (-20.2 °F)	ASTM D1238

Processing Information

*Maximum Processing Temperature 230 °C (446 °F)

General Processing Information Handling Precautions:
Entira™ HPE elastomers contain small amounts of residual monomers and adequate ventilation should be provided during mixing and processing to prevent worker exposure to these monomers. Additional information is available in the Safety Data Sheet (SDS).

Compound Formulation Guidelines:
The principles of compounding Entira™ HPE are similar to conventional technology in that curatives, fillers, stabilizers, plasticizers and process aids are used. Attention must be given to avoiding ingredients that might give detrimental effects.
Entira™ HPE compounds are normally cured using a peroxide (i.e., Vul-Cup®, Peradox®, Di-Cup®,... etcetera) in combination with a co-agent. Selection of the system depends on desired compound properties and processing conditions.

Compounds including Entira™ HPE can be mixed on an open roll mill, in an internal mixer or in a continuous mixer. The resultant compounds incorporating Entira™ HPE can then be extruded, molded or calendered. Shrinkage during molding is expected and varies with compound formulation and process conditions.

Compounds of Entira™ HPE should be formulated to meet a chosen set of specific end-use performance requirements. The compounds must have a balance of good processability and good final cured properties to satisfy the downstream processors and end-users.

FDA Status Information	For information on regulatory compliance within the U.S., consult your local DuPont representative.
Regulatory Information	For information on regulatory compliance outside of the U.S., consult your local DuPont representative.
Safety & Handling	For information on appropriate Handling & Storage of this polymeric resin, please refer to the material Safety Data Sheet. A Product Safety Bulletin, material Safety Data Sheet, and/or more detailed information on extrusion processing and/or compounding of this polymeric resin for specific applications are available from your DuPont Performance Materials representative.

Regional Centres

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