



# SHAKUN POLYMERS PRIVATE LIMITED



## HTP-HDS

### BLACK HIGH DENSITY POLYETHYLENE COMPOUND

## Description

HTP-HDS is a High Density Polyethylene Sheathing Compound especially designed to meet the very rigorous requirement for Sheathing of Optical Fibre and Power Cables. It has got excellent ESCR and heat deformation properties and contains well-dispersed Carbon Black of fine particle size in order to ensure excellent weathering resistance.

## Application

In addition to Sheathing of Optical Fibre Cables, HTP-HDS is also well suited for jacketing of power cables and can resist severe laying conditions even at elevated ambient temperatures. The ESCR and petroleum jelly resistance makes its suitable for jacketing of communication cables as well.

## Specification

HTP-HDS meets the following specification.

- BS 6234: TYPE H03C, TS2
- ASTM D 1248, TYPE III, CLASS C, CATEGORY 5, GRADE E8, E9, J4.

## Properties

<i>Physical Properties</i>	<i>Test Method</i>	<i>Unit</i>	<i>Typical Value</i>
Melt Index	ASTM D 1238	g/10 min	0.30
Density at 27° C	ASTM D 1505	g/cm <sup>3</sup>	0.952
Tensile Strength	ASTM D 638	MPa	25
Elongation	ASTM D 638	%	700
ESCR (10%IGEPAL) Fo	ASTM 1693	h	>500
OIT at 200 °C	ASTM D 3895	min	>40
Shore D Hardness	ASTM D 2240	--	60
Shrinkage	ASTM D 1204	%	1.50
Carbon Black Content	ASTM D 1603	%	2.5 ± 0.5
Carbon Black Dispersion	BS 2782	rating	3
<i>Electrical Properties</i>			
Dielectric Constant	ASTM D 150	--	2.45
Dissipation Factor	ASTM D 150	--	0.0005
Dielectric Strength	ASTM D 149	kV/mm	20
Volume Resistivity	ASTM D 257	ohm-cm	10 <sup>16</sup>

\* Data should not be used for specification work

**## 2 ##****Processing Temperature**

HTP-HDS can be processed at a melt temperature in the range of 190-230 ° C.

**Packaging**

HTP-HDS is available in the form of free flowing granules and supplied in Raffia Bags with a net content of 25 Kgs.

**Storage & shelf life**

The product/compound should remain in

- Sealed condition
- Without exposing to direct sunlight and temperature not exceeding 45°C

Shelf life of the compound is 12 months from the date of manufacture.

Product alteration may occur due to extended period of storage.

Shakun accepts no liability of any kind in case the above mentioned storage conditions are not fulfilled.

**Safety**

HTP-HDS is not classified as a dangerous preparation.

The product is supplied in form of pellets of about 2 – 3 mm in size and can be readily handled with commercially available equipment. All handling and transport of the product may generate some dust and fines, which constitute a potential risk for dust explosion. Therefore, all instruments in the system should be properly grounded. Properly designed equipment and good storage will reduce the potential risk. Please, check and follow local disposal regulations!

Inhalation of any type of dust may irritate the air passages and should be avoided. For hot products: immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat.

In case of adverse exposure to melting products formed at elevated temperatures, immediately remove the affected victim from exposure.

Sweep up spilled granules and place in suitable containers for recycle or disposal. Consult an expert on disposal or recovered material and ensure conformity to local disposal regulations.

The product is intended for industrial use only. A Material Safety Datasheet is available on request. Please contact our Technical Team at SHAKUN POLYMERS PRIVATE LTD., for more details on various aspects of safety, recovery and disposal of the product.

This information is to the best of our knowledge accurate but all recommendations or suggestions are made without guarantee or legal liabilities since the conditions of use are beyond our control. The typical values given do not constitute specification for the product but represent typical analytical values.

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