

**Product Code: TIS COAT 3040**

## Product Type:

Polyethylene, High Density, Black Compound

## Product Application:

TIS COAT 3040 is recommended for top-coat in 3-layer PE coating of steel pipes and is suitable for severe laying conditions even at elevated ambient temperature with this material, high running speeds and relatively thin layers are obtained without problems.

## Product Description:

TIS COAT 3040 is a black high density polyethylene compound suitable for multilayer system steel pipe coating. It has good mechanical properties and E.S.C.R TIS COAT 3040 contains 2.5% (Max.) well dispersed carbon black in order to ensure excellent weathering resistance. Antioxidant and processing aids are also added.

## Product Properties:

Property	Test Method	Value	Unit
Melt Flow Index (190°C/2.16kg)	ISO 1133	0.30 – 0.45	gr/10min
Density (compound) at 23±2°C	ISO 1183	0.945 – 0.955	gr/cm <sup>3</sup>
Yield strength at 23±2°C(50mm/min.)	ISO 527	≥15	MPa
Tensile strength at break at 23±2°C(50mm/min.)	ISO 527	≥25	MPa
Elongation at break at 23±2°C(50mm/min.)	ISO 527	≥600	%
E.S.C.R(50° C, F0)	ASTM D 1693	≥1000	Hours
O.I.T at 210° C	ISO 11357	≥30	Minutes
Melting point (DSC Method)	ISO 11357	≥125	°C
Hardness	ISO 868	≥55	Shore D
Temperature Brittleness	ASTM D 746	≤-70	°C (No Fracture)
VICAT Softening point (A/50,9.8 N)	ISO 306	≥115	°C
Carbon black content	ASTM D 1603	2.0 – 2.5	%
Carbon black dispersion	ISO 18553	≤3	Grade
Water content	ISO 15512	≤0.05	%Weight
Thermal aging	ISO 21809-1.Ann.G	≤35	%ΔMFI
UV Resistance	ISO 21809-1.Ann.G	≤35	%ΔMFI

All mentioned information in this table are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any data given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

## Pre-drying:

Due to the hygroscopic nature of carbon black, this compound is sensitive to moisture. storage for a long time or under unfavorable conditions can increase the moisture content for normal conditions and applications we suggest preheating and drying in a dehumidifying drier for minimum of 90 minutes with a preheat temperature of 90° C more specific recommendations can be made when the applications and Type of equipment are known.

## Extrusion:

TIS COAT 3040 can be applied using a flat die or a crosshead technique and provides good surface finish over a broad range of conditions the actual extrusion conditions will depend on the type of equipment used and the size of the pipe.

## Product Packaging & Storage:

Polyethylene product packed in 25kg bags or 750kg big bags stacked on wooden pallet shall be stored in enclosed dry place preventing from direct sunlight at least 1 meter far from heaters, at temperature min. -15°C / max. 35°C, relative humidity max. 80%. Prior to processing PE product bags shall be kept in production area for at least 12 hours.

PE shelf life is 60 months from the date of manufacture.