

# Technical Data Sheet

## TSP-535 Compound



### Description

TSP-535 is a high-performance HDPE compound engineered for three-layer polyethylene (3LPE) steel pipeline coating. TSP-535 exhibits high impact and abrasion resistance, excellent mechanical & thermal protection, long-term corrosion protection under aggressive soil and environmental conditions.

### General

**Form:** Black Pellets

**Process:** Extrusion

**Application:** External coating for oil, gas, and water transmission pipelines

**Additives:** AO, PPA, Carbon Black

**Packaging:** 25 kg sack / 850 kg big bag

### Physical Properties

Property	Test Method	Unit	Result
Density	ISO 1183	g/cm <sup>3</sup>	0.945±0.005
Melt Flow Rate (190°C/2.16kg)	ISO 1133	g/10 min	0.6±0.2
Carbon Black Content	ISO 6964	%	2.3
Tensile Strength at Yield	ISO 527	MPa	24
Elongation at Break	ISO 527	%	800
Hardness	ISO 868	Shore D	60
Melting Point	ISO 11357	°C	128
Oxidation Induction Time	ISO 11357	min	60
ESCR (50°C, F50)	ISO 22088	h	>1000

### Processing Guidelines

The compound provides excellent surface finish and output rates over a broad range of conditions in PE screw extruder; however, the optimum results are recommended as follows:

- Barrel Temperatures: 150-220 °C
- Die Head Temperatures: 230-240 °C

### Notes

- The typical properties have been determined using laboratory equipment. Users are advised to verify results through their own standard testing methods.
- The compound is suitable for use on various machines; however, minor adjustments may be required for individual equipment. Customers are advised to verify product quality prior to commercial use.
- The compound should be stored in its original packaging under cool and dry conditions, protected from direct sunlight, heat and contamination. The recommended storage period at the customer's site should not exceed two years.

