



High Density Polyethylene (HDPE)

1. Product Overview

High Density Polyethylene is a white granular product, with a crystallinity of 80~90%. Its softening point is 125~135°C, and the use temperature can reach 100°C. Its hardness, tensile strength and creep property are better than those of Low Density Polyethylene, with good wear resistance, electrical insulation, toughness and cold resistance, and stable chemical properties. At room temperature, it is insoluble in common organic solvents, and resistant to corrosion by acids, alkalis and various salts. The permeability of the film to water vapor and air is small, with low water absorption. Its aging resistance is slightly poor, and its environmental stress cracking resistance is not as good as that of Low Density Polyethylene, especially thermal oxidation will lead to performance degradation. Therefore, antioxidants and ultraviolet absorbers need to be added to the resin to improve it.

2. Product Specifications

Analysis Item	Unit	TR210T	TR210HS
Melt Flow Rate	g/10min (190°C 2.16kg)	0.8	0.8
Density	kg/m ³	945	945
Yield Tensile Strength	MPa	≥18	≥18
Environmental Stress Crack Res. condition B, F ₅₀	h	≥200	≥200
Elongation at Break	%	≥500	≥500
Oxidation Induction Time	min	≥50	≥50
Volume Resistivity	Ω·m	≥1*10 ¹⁴	≥1*10 ¹⁴
Ash Content	wt%	≤0.04	≤0.04

3. Application Fields

- Communication cable
- Film packaging