

Technical Data Sheet

DPW-424 Compound



Description

DPW-424 is a specialized formulation of HDPE compound designed for the production of drip irrigation pipes to supply reliable agricultural water delivery systems. DPW-424 combines excellent mechanical strength, controlled flexibility, long-term UV/weathering resistance, smooth surface finish, and high temperature & pressure resistance.

General

Form: Black Pellets

Process: Extrusion

Application: Drip irrigation pipe and tube, Emitting and drainage systems

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 ³	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 Break	ISO 527	MPa	22
Elongation at Break	ISO 527	%	750
Hardness	ISO 868	Shore D	58
Vicat Softening Temperature	ISO 306	°C	127
Oxidation Induction Time	ISO 11357	min	30
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.

