

# HANWHA CHNA-8380

High Density (HMW) Polyethylene

Hanwha Chemical

Message:

Hanwha CHNA-8380 is a high molecular weight, high density polyethylene(HDPE) insulation compound especially designed for high-speed wire insulating extrusion process. It provides excellent processability, environmental and thermal stress cracking resistance. It meets major international aging test specification for both solid and foam/skin insulation. It can be used for the full range of telephone cable insulation including air-core, jelly-filled and LAN cable (Cat. 5/5e).

General Information			
Features	Good Processability		
	High Density		
	High ESCR (Stress Crack Resist.)		
	High Molecular Weight		
Uses	Communication Wire Insulation		
	Wire & Cable Applications		
Agency Ratings	ASTM D 1248, III, Class A, Cat. 4, Grade E8		
	ASTM D 1248, III, Class A, Cat. 4, Grade E9		
	BS 6234 Type H03		
	ICEA S-84-608		
	IEC 60708		
	NF C 32-060		
Forms	Pellets		
Processing Method	Extrusion		
	Wire & Cable Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.945	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.70	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (50°C, 10% Igepal, F0)	> 1000	hr	ASTM D1693
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 1 sec)	53		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	23.5	MPa	ASTM D638
Tensile Elongation (Break)	550	%	ASTM D638
Aging	Nominal Value	Unit	Test Method
Oven Aging (100°C)	2.0	day	

Retention of Tensile Elongation - 2 days (100°C)	> 90	%	ASTM D638
Retention of Tensile Strength - 2 days (100°C)	> 90	%	ASTM D638
Oxidation Induction Time - AI (200°C)	> 100	min	ASTM D3895
Thermal Stress Crack Resistance	> 96	hr	ASTM D2951
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -76.0	°C	ASTM D746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+16	ohms·cm	ASTM D257
Dielectric Constant (1 MHz)	< 2.30		ASTM D150
Dissipation Factor (1 MHz)	< 1.0E-4		ASTM D150
Extrusion	Nominal Value	Unit	
Melt Temperature	240 to 280	°C	

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