

MARPOL® HDP 510

High Density Polyethylene

Marco Polo International, Inc.

Message:

Recommended Applications

Extrusion of potable water, natural gas, industrial, and mining pipe.

MARPOL ® HDP 510 is recognized by the Plastic Pipe Institute as having a pipe material designation code of PE 4710 and PE 100.

General Information			
Additive	Carbon Black		
Uses	Industrial Applications		
	Mining Applications		
	Natural Gas Distribution		
	Piping		
	Potable Water Applications		
Agency Ratings	PPI PE-100		
	PPI PE-4710		
Processing Method	Pipe Extrusion		
Physical	Nominal Value	Unit	Test Method
Density			ASTM D4883
-- ¹	0.949	g/cm ³	
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Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	8.5	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance	> 5000	hr	ASTM D1693C
Carbon Black Content	2.3	%	ASTM D1603
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	66		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ³			ASTM D638
Yield	25.0	MPa	
Break	37.9	MPa	
Tensile Elongation ⁴ (Break)	600	%	ASTM D638
Flexural Modulus - 2% Secant	1030	MPa	ASTM D790
Hydrostatic Design Basis			ASTM D2837
23°C	11.0	MPa	
60°C	6.89	MPa	
Thermal Stability	220	°C	ASTM D2513
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact	480	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -118	°C	ASTM D746
Vicat Softening Temperature	126	°C	ASTM D1525
NOTE			
1.	Natural		
2.	Black		
3.	51 mm/min		
4.	51 mm/min		

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Recommended distributors for this material

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