Formolene® E6210C

Tuesday, November 5, 2019

Formosa Plastics Corporation, U.S.A. - High Density (HMW) Polyethylene

General Information

Product Description

Formolene ® E6210C is a bimodal high molecular weight high density resin pressure pipe resin. It contains an enhanced additive package for increased oxidative resistance in potable water systems. When blended with the approved color concentrate, Formolene ® E6210C complies with the following industry standards:

- Cell Classification: 445574C CC2 per ASTM D3350
- Material Rating Designation for E6210C
- Per ASTM a PE 4710 resin with an HDB of 1,600 psi@73°F and 1,000 psi @ 140°F per PPI TR-4
- Per ISO a PE 100 resin with an MRS 10 at 20°C. It meets the requirements for a PE 100 compound as qualified by ISO 9080 and ISO 12162.
- Meets NSF 14 and 61 for use with potable water systems

Suggested Applications:
Potable Water; Oil and Gas Gathering and Distribution; Chemical, Industrial and Mining; Sewer Systems

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Antioxidant		
Features	• Antioxidant • Bimodal Molecular Weight Distribution	• Food Contact Acceptable • High Density	• High Molecular Weight
Uses	• Industrial Applications • Mining Applications	• Oil/Gas Applications • Piping	• Potable Water Applications
Agency Ratings	• ASTM D3350 PE445574C CC2 • ASTM PE4710	• EC 1907/2006 (REACH) • ISO PE 100	• NSF STD-14 • NSF STD-61
Forms	• Pellets		
Processing Method	• Extrusion	• Pipe Extrusion	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density			ASTM D1505
Natural	0.948	g/cm³	
Black	0.957	g/cm³	
Melt Mass-Flow Rate			ASTM D1238
190°C/2.16 kg [2]	0.040	g/10 min	
190°C/21.6 kg [3]	6.7	g/10 min	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [4, 5] (Yield)	> 3480	psi	ASTM D638
Tensile Elongation [4, 5] (Break)	> 600	%	ASTM D638
Flexural Modulus [6]			ASTM D790
1% Secant : 0.0394 in, 0.630 in Span	> 135000	psi	
2% Secant : 0.0394 in, 0.630 in Span	> 115000	psi	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.00492 in)	9.2	ft·lb/in	ASTM D256

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Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature [7]	< -94.0	°F	ASTM D746A
Thermal Stability	500	°F	ASTM D3350

Additional Information	Nominal Value	Unit	Test Method
PENT	> 2000	hr	ASTM F1473

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] MI

[3] HLMI

[4] Type IV, 2.0 in/min

[5] Pigmented

[6] 0.50 in/min

[7] Type I