

Pexidan® L/T

High Density Polyethylene

Saco Polymers

Message:

High density moisture curable polyethylene compound for hot and cold water plumbing pipe. Suitable for SDR 9 pipe applications in continuous service at operating conditions of 140°F and 80 psi.

Pexidan® L/T (including L/T Eclipse) is a high density PEX System consisting of a silane grafted base-compound A-1001 and a catalyst masterbatch CAT-003. When mixed and extruded in the proper proportions, the two-component system results in a material that is crosslinkable by exposure to moisture or by immersion in hot water at 90-95°C. Pexidan® L/T is listed by NSF International to Standards 14 and 61 and to Canadian Standards Association standard B137.5. NSF certification to ASTM F 876 and ASTM F 2023 testifies to its superior resistance to oxidation by hot, chlorinated water. Pexidan® L/T is permitted to be used in domestic continuous re-circulation systems and is listed by NSF as a NSF-pw CL5 / PEX 5006 material.

General Information			
Features	High density Antioxidation Crosslinkable		
Uses	Piping system		
Agency Ratings	ASTM F 2023		
	ASTM F 876		
	CSA B137.5		
	NSF 14		
	NSF 61		
Forms	Particle		
Processing Method	Pipeline extrusion molding		
	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.944	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Degree of Crosslinking	> 70	%	ASTM D2765
Fundamentals of hydrostatic design-@ 68% DOC			ASTM D2837
23°C	8.62	MPa	ASTM D2837
82°C	5.52	MPa	ASTM D2837
93°C	4.34	MPa	ASTM D2837
Oxidation Induction Time	> 50	min	ASTM D3895
Hot Elongation ¹			Internal method
elongation under load : 150°C	30	%	Internal method
permanent elongation (set) after cooling : 150°C	0.0	%	Internal method

Head Temperature	365	°F	
Screw cooling	neutral		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-2
-40°C	2310	MPa	ISO 527-2
0°C	1690	MPa	ISO 527-2
23°C	862	MPa	ISO 527-2
Tensile Strength			ASTM D638
Yield	20.0	MPa	ASTM D638
Fracture	21.0	MPa	ASTM D638
Tensile Elongation (Break)	400	%	ASTM D638
Flexural Modulus			ISO 178
-40°C	517	MPa	ISO 178
0°C	379	MPa	ISO 178
23°C	207	MPa	ISO 178
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	124	°C	ASTM D1525
CLTE - Flow (-100 to 85°C)	1.5E-4	cm/cm/°C	ASTM D696
Specific Heat (23°C)	1920	J/kg/°C	
Additional Information	Nominal Value	Unit	Test Method

Curing can be done in the following ways:

by immersion in hot water at 90-95°C

by exposure to low pressure steam

In all cases curing time depends on pipe wall thickness, temperature, relative humidity and any packaging used. Typical values reported above (except MFR) are obtained from samples cured in hot water (6 hours @ 95°C).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	160 - 177	°C
Cylinder Zone 2 Temp.	160 - 177	°C
Cylinder Zone 3 Temp.	160 - 177	°C
Cylinder Zone 4 Temp.	160 - 177	°C
Die Temperature	185	°C

NOTE

1. 15 minutes, 0.2 N/mm² load

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