

Pexidan® V/T

Crosslinked Polyethylene

Saco Polymers

Message:

Low density moisture curable polyethylene compound for low voltage building wire, control cable and cable tray applications (UL styles SIS, XHH, XHHW, XHHW-2, RHH, RHW, and RHW-2 VW-1)

Pexidan® V/T is a low density XLPE system curable by moisture and consists of a silane pre-grafted base compound A-3001 and a flame-retardant catalyst masterbatch CAT-010FR. Mixed and extruded in the proper proportions (50/50), the two components result in a material that is curable by exposure to hot water. Pexidan® V/T is a RoHS-compliant system.

General Information	
Additive	Flame retardancy
Features	Low density
	Crosslinkable
	Flame retardancy
Uses	Low voltage insulation
	Wire and cable applications
RoHS Compliance	RoHS compliance
Forms	Particle
Processing Method	Wire & Cable Extrusion
	Extrusion

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.80	g/10 min	ASTM D1238
Degree of Crosslinking	60	%	ASTM D2765
Deformation	1.0	%	UL 1581
Dielectric Breakdown			UL 1581
--	21500	V	UL 1581
after glancing impact	18000	V	UL 1581
Insulation Resistance			UL 1581
23°C	34000	Mohms/1000 ft	UL 1581
90°C	25000	Mohms/1000 ft	UL 1581
after 12 weeks : 90°C	29000	Mohms/1000 ft	UL 1581
Crushing Test	578330	g	UL 1581
Hot Elongation - elongation under load (150°C) ¹	50	%	Internal method
Head Temperature	185	°C	
Screw cooling	neutral		

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			UL 1581
Yield	11.0	MPa	UL 1581
Fracture ²	12.7	MPa	UL 1581
Fracture ³	12.1	MPa	UL 1581
Fracture	12.8	MPa	UL 1581
Fracture ⁴	11.7	MPa	UL 1581
Tensile Elongation			UL 1581
Fracture ⁵	300	%	UL 1581
Fracture ⁶	250	%	UL 1581
Fracture	280	%	UL 1581
Fracture ⁷	230	%	UL 1581
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -45.0	°C	ASTM D746
Electrical	Nominal Value	Unit	Test Method
Relative Permittivity (90°C)	3.20		UL 1581
Flammability	Nominal Value	Unit	Test Method
Oxygen Index (4.00 mm)	27	%	ASTM D2863
Additional Information	Nominal Value	Unit	Test Method

Curing can be done in the following ways:

by immersion in hot water at 70-90°C

by exposure to low pressure steam

In all cases curing time depends on wall thickness, temperature, relative humidity and quantity of wire on the reel. Typical values reported above (except MFR) are obtained from a 14 AWG wire with 30-mil wall thickness, cured in hot water (6 hours @ 95°C).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	154 - 171	°C
Cylinder Zone 2 Temp.	154 - 171	°C
Cylinder Zone 3 Temp.	154 - 171	°C
Cylinder Zone 4 Temp.	154 - 171	°C
Die Temperature	185	°C

NOTE

- 15 minutes, 0.2 N/mm² load
- After 60 day oil @ 75°C
- After 30 day gasoline @ 23°C
- After thermal ageing (7days @121°C)
- After 60 day oil @ 75°C
- After 30 day gasoline @ 23°C
- After thermal ageing (7days @121°C)

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