

Petrothene T3XL7420

In a world of change and uncertainty, wire and cable customers can count on Equistar Chemicals LP, part of the LyondellBasell family of companies ("LyondellBasell") to deliver high quality and innovative cross-linkable polyolefin solutions for demanding wire and cable applications. In 1974, LyondellBasell was awarded a patent for a 125°C cross-linkable polyolefin non-halogen compound, *Petrothene* XL07400. The first of its kind.

Today, LyondellBasell is proud to announce the latest product in a long history of innovation, *Petrothene* T3XL7420. This new product is selected by customers for use in 125°C ISO thin wall automotive primary wire applications and, with recent certifications from Underwriters Laboratories and Canadian Standards Association, *Petrothene* T3XL7420 can now also be used in appliance wire.

The appliance wire certifications obtained by LyondellBasell include:

- UL AWM 125°C 600Vac, Oil Resistance and Gasoline Resistance.
- UL SIS, Oil Resistance, PRI, PRII, Gasoline Resistance: GRI, GRII, -40°C Cold Rating, all gauges and colors.
- CSA CL1251, CL1252, AWM I, A/B, 125°C/150°C, 300Vac/600Vac, FT2, all gauges and colors.

This new compound has:

- · Excellent thermal stability
- · Increased stiffness (column strength) for ease of assembly
- Enhanced barrier performance (oil resistance)
- Enhanced cure kinetics for increased line speeds via. continuous vulcanization (CV).

For more information, please contact a LyondellBasell representative.



Unaged and aged property retention at 180°C

Unaged	Tensile, psi	2114
	Elongation, %	274
7 days	Tensile, psi	2559
	Elongation, %	211
	% retention Tensile	121
	% retention Elongation	77
10 days	Tensile, psi	2513
	Elongation, %	207
	% retention Tensile	119
	% retention Elongation	76
14 days	Tensile, psi	2640
	Elongation, %	189
	% retention Tensile	125
	% retention Elongation	69
21 days	Tensile, psi	2665
	Elongation, %	184
	% retention Tensile	126
	% retention Elongation	67
30 days	Tensile, psi	2562
	Elongation, %	157
	% retention Tensile	121
	% retention Elongation	57

Tensile, psi & Elongation, % vs. Days at 180°C

— Smooth(Tensile, psi) — Smooth(Elongation, %)



Cure kinetics



Property	Petrothene T3XL7420	Petrothene XL07420B	Competitive compound
Flex mod, 2% Secant, psi	33250	30850	25400
Young's Mod, psi	40180	34640	26410
Shore D, 15 sec.	47	46	46
IRM902 96hrs at 50°C, tensile chg % / elong. chg. %	-1.5 / 5.9	-3.8 / 4.6	-2.2 / 0
IRM903 96hrs at 50°C, tensile chg % / elong. chg. %	-8.4 / 5.9	-14.1 / 9.1	-12.9 / 0
Volume resistivity, Ω - cm	6.95 x 10 ¹⁴	2.22 x 10 ¹⁴	1.20 x 10 ¹⁴

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