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VANDERBILT

Technical Data

WB-3 Slurry **a Dispersion of VANOX[®] MTI Antioxidant Synergist** for use in Neoprene 750 Liquid Dispersion with Phenolic Antioxidants

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TECHNICAL DATA

No. 1221
Rubber Department

WB-3 Slurry a Dispersion of VANOX[®] MTI Antioxidant Synergist for use in Neoprene 750 Liquid Dispersion with Phenolic Antioxidants

WB-3 Slurry is a 50% active dispersion of **VANOX MTI** antioxidant synergist with exceptional anti-settling characteristics.

WB-3 Slurry (VANOX MTI) does not interfere with the surface tack of latex compounds. This product is effective in latex compounds but is especially recommended for **Neoprene Liquid Dispersion** adhesives and coatings.

WB-3 Slurry (VANOX MTI) also helps to significantly improve the heat resistance of latex compounds. The aged properties of the latex compound are considerably improved by using **WB-3 Slurry** as an antioxidant synergist with either an amine or phenolic antioxidant. The use of this product with an antioxidant provides superior results as compared to just doubling the amount of antioxidant. This can be seen in both the retention of elongation and the tear strength of the finished product.

As the following figures indicate, the use of **WB-3 Slurry (VANOX MTI)** greatly improves not only the retention of physical properties but also the original physical properties. Films made with **WB-3 Slurry (VANOX MTI)** exhibit a 30-40% increase in both unaged and aged physical properties.

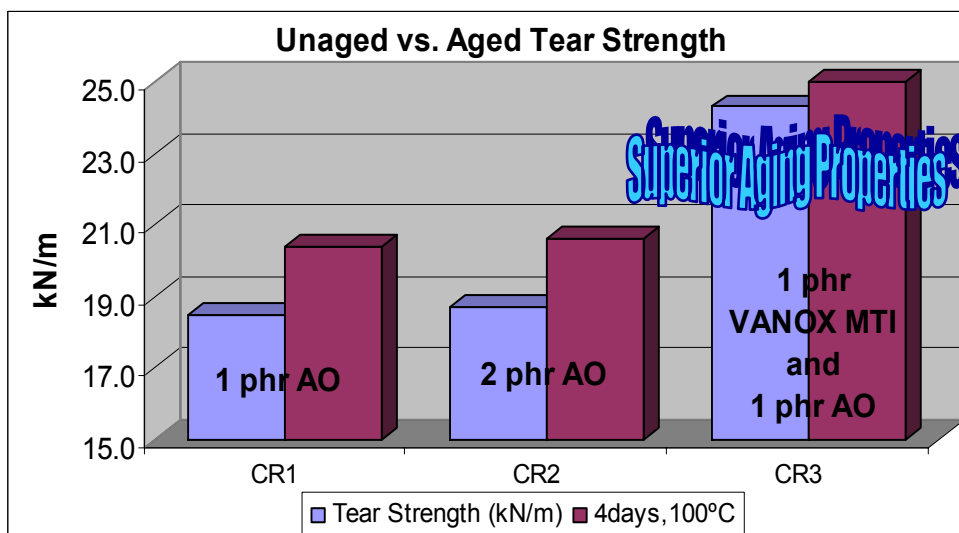


Figure 1: Original vs. Aged Tear Strength

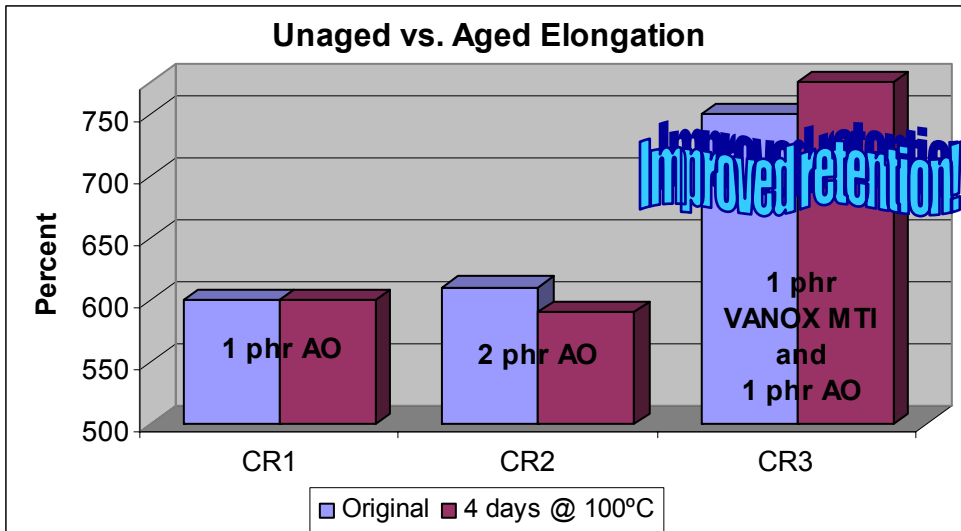


Figure 2: Unaged Compared to Aged Elongation

The following test recipe can be used as a starting point to begin compounding using this antioxidant system.

Table: Test Compounds

INGREDIENTS	COMPOUNDS (phr)		
	CR1	CR2	CR3
Neoprene 750 Liquid Dispersion	100.0	100.0	100.0
DARVAN® WAQ surfactant	1.0	1.0	1.0
ZINC OXIDE Dispersion	5.0	5.0	5.0
BUTYL NAMATE® accelerator	0.7	0.7	0.7
METHYL TUADS® accelerator	1.0	1.0	1.0
DARVAN SMO surfactant	1.0	1.0	1.0
VANOX L antioxidant	1.0	2.0	1.0
WB-3 Slurry	-----	-----	1.0

The compounds were cured at 141°C for 45 minutes.

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