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# VANDERBILT

## *Technical Data*

### **VANOX<sup>®</sup> ZMTI Slurry and SETSIT<sup>®</sup> Liquid Accelerator** A Low Zinc Compound

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# TECHNICAL DATA

No. 1217  
Rubber Department

## VANOX<sup>®</sup> ZMTI Slurry and SETSIT<sup>®</sup> Liquid Accelerator A Low Zinc Compound

Latex compounders now have available a novel cure system, consisting of a combination of **VANOX ZMTI Slurry** and **SETSIT** accelerators, which lengthens compound shelf-life while decreasing manufacturing time. Some advantages to using this novel cure system include:

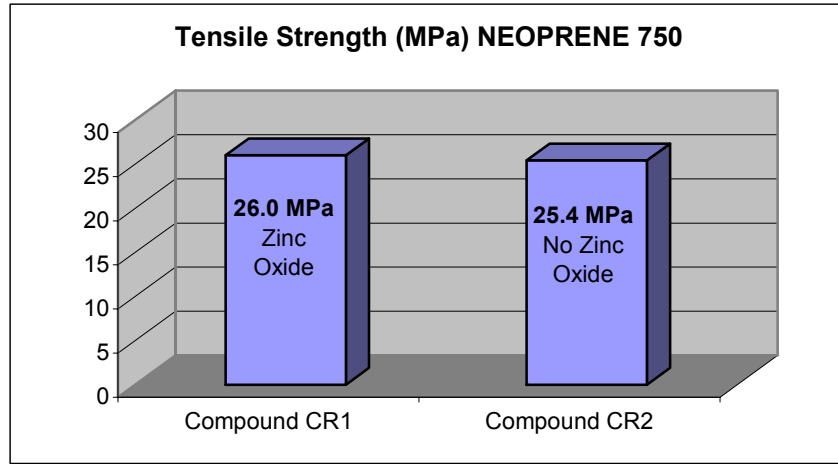
- Easier dispersion of the additives in the compound.
- Less settling problems than with Zinc Oxide.
- Time savings because of shorter mixing time.
- A more homogeneous latex compound because of smaller particle size.
- Reduces increases in compound viscosity.
- Longer product shelf-life.

Most latex compounds can now be effectively vulcanized without the use of metal oxides and zinc-based accelerators. This is easily accomplished by replacing the metal oxide dispersion with 1 phr of **VANOX ZMTI Slurry** and the zinc-based accelerators with sodium-based **SETSIT** accelerators. The latex films obtained using this novel accelerator system show physical properties essentially equivalent to those obtained through conventional zinc-cured systems.

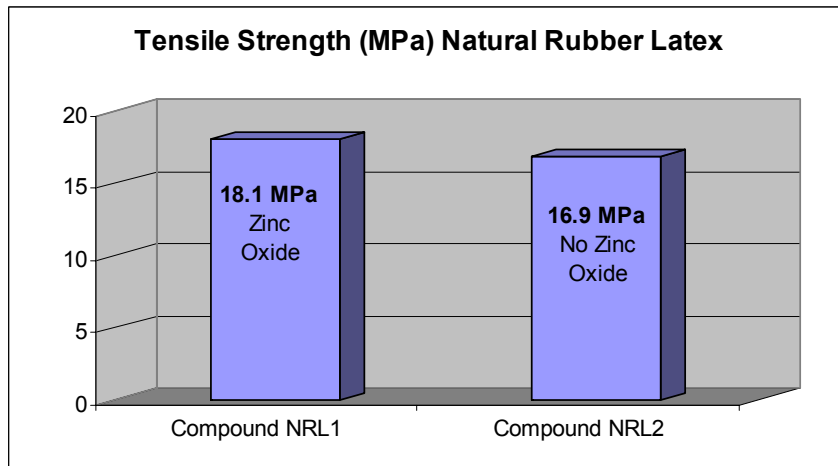
INGREDIENTS	COMPOUNDS					
	CR1	CR2	NRL1	NRL2	IR1	IR2
<b>NEOPRENE 750 Liquid Dispersion</b>	100.0	100.0	----	----	----	----
Natural Rubber Latex	----	----	100.0	100.0	----	----
Synthetic Polyisoprene Latex	----	----	----	----	100.0	100.0
<b>DARVAN<sup>®</sup> WAQ</b> surfactant	0.3	0.3	0.3	0.3	0.3	0.3
<b>ZINC OXIDE Dispersion</b>	0.5	----	0.5	----	0.5	----
Sulfur Dispersion	1.5	1.5	1.5	1.5	1.5	1.5
<b>VANOX ZMTI Slurry*</b>	1.0	1.0	1.0	1.0	1.0	1.0
Phenolic Antioxidant Slurry*	1.0	1.0	1.0	1.0	1.0	1.0
<b>THIATE<sup>®</sup> U</b> accelerator	1.0	1.0	1.0	1.0	1.0	1.0
<b>SETSIT 104</b> accelerator	1.0	1.0	1.0	1.0	1.0	1.0
<b>DARVAN SMO</b> surfactant	0.5	0.5	0.5	0.5	0.5	0.5

\* These two products can be purchased in a convenient, ready-to-use blend, **VANOX SPL Slurry**.

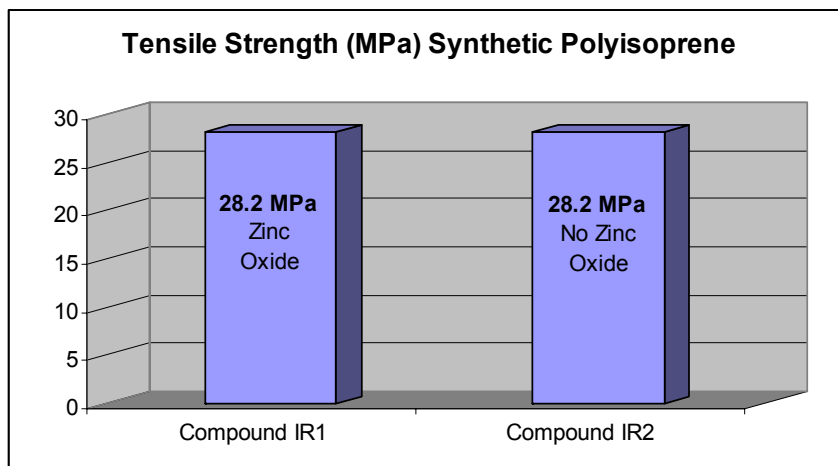
The NEOPRENE 750 Liquid Dispersion films were cured at 120°C for 30 minutes.



The Natural Rubber Latex compounds were cured for 20 minutes at 100°C.



The synthetic polyisoprene films were cured at 100°C for 30 minutes.



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