

Product Information

Rubber and Plastics Department

VANOX[®] ZMTI

Synergistic Antioxidant – To maximize your product's resistance to high temperature

Rubber compounds are often protected by the use of just one antioxidant, but more severe service conditions require the use of combinations of antioxidants.

VANOX ZMTI is an antioxidant that is manufactured at R.T. Vanderbilt Company's plant in Murray, KY. It works particularly well in combination with other antioxidants. Its synergistic effect can be demonstrated in various rubber formulations based on polymers such as EPDM, Natural Rubber, Neoprene, NBR and SBR.

VANOX ZMTI provides excellent protection against heat and oxygen aging, especially when combined with amine or phenolic-type antioxidants, and is also beneficial where improved flex fatigue resistance is required. The synergistic effect of **VANOX ZMTI** with other antioxidants can be demonstrated in both mineral- and carbon black-filled compounds, cured with conventional sulfur, low sulfur, sulfur-donors, or peroxides.

VAROX[®] peroxide cures provide vulcanizates with maximum thermal and oxidative stability, as well as superior resistance to compression set. Most antioxidants reduce peroxide efficiency, resulting in the loss of physical properties. **VANOX ZMTI** is fully compatible with peroxide cures and gives the best results in combination with amine antioxidants such as **AGERITE[®] SUPERFLEX[®] SOLID G**. This synergistic combination of antioxidants also offers the best thermal stability and maximum flex fatigue resistance in conventional sulfur cure systems.

AGERITE STALITE[®] S is the preferred antioxidant for Neoprene. When used with **VANOX ZMTI**, in either a **VAROX** peroxide or Ethylene Thiourea (ETU) cure system, the synergistic effect is evident in the increased state of cure and improved heat resistance. This combination also improves flex-fatigue resistance despite providing higher modulus and hardness, along with improved compression set.

In summary, **VANOX ZMTI** exhibits the following features:

- Synergy with amines and phenol antioxidants
- Maximum high-temperature resistance
- Flex-fatigue resistance
- No interference with peroxide cures
- Nonvolatile
- Good color

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Please contact your local R.T. Vanderbilt Technical Sales Representative for further information. Technical literature and samples can also be requested by calling Susan Flores at 1-800-243-6064, or through our website, www.rtvanderbilt.com



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