



# Anti Reversing Agent(Accelerator)

## Vulnoc PM

(N,N'-M-Phenylene Bismaleimide)

### Description:

Vulnoc PM is a Multifunctional Additive for Rubber

- It acts as an Anti Reversion Agent in NR
- CoAgent in Peroxide Cure Systems
- Accelerator & Cure Promoter in Sulfur Cure Systems. In Sulfur Cure Systems use of Vulnoc PM leads to the addition of non-sulfur Crosslink's during the Vulcanizing which are more stable than C-S linkages
- It is also used as Primary Curative for Tosoh CSM (ChloroSulphonated Polyethylene)
- Co-monomer for high Temperature Resin Systems

### Physical Properties:

Appereance	Yellowish powder	Melting Point	200°C
Ash	0.30% max	Heating loss	0.30% max
Shelf Life	1 year	Packing	10 Kg paper bag

### Characteristics:

Improves cross linking effectiveness/density	Increases Heat Resistance
Suitable in High temp cure systems - will increase output	Reduces Compression Deformation
Prevents scorching of Rubber during process	Improves Adhesion of Rubber with Tyre cord/Metal
Reduces Pyrogenesis	Antireversion agent for Thick products

### Advantages in Various Rubbers:

#### CSM – ChloroSulphonated Polyethylene

- 1) Primary Curative for CSM
- 2) Good Process Safety compared to other cure systems
- 3) Enhances Oil Resistance and Lowers Compression set
- 4) Improved Electrical properties
- 5) Excellent Bin Stability of Compound (Shelf Life)
- 6) Good Heat Ageing Resistance

Dosage 1 phr

#### NR – Natural Rubber

- 1) Anti Revision agent, specially recommended for thick products like OTR Tyre, Dock Fenders etc...
- 2) Improves Heat Resistance
- 3) Improves Adhesion between Rubber & Tyre cord/ Steel cord

Dosage 0.2 ~ 5.0 phr

## **EPM/EPDM – Ethylene Propylene Rubber/Diene Rubber**

- 1) Increases Rate & State of Cure
- 2) Increases Tensile by upto 20%
- 3) Improves Heat Ageing Resistance
- 4) Improves Resistance to Compression Set
- 5) Reduces time to achieve Tc90 (90% cure)
- 6) CoAgent for Peroxide cure system helps Reduce Peroxide dosage – gives tighter cure.

Dosage 2~3 phr

## **CPE – Chlorinated Polyethylene Polymer**

- 1) Improves State of Cure
- 2) Gives Better Modulus
- 3) Increases Tensile Strength
- 4) Co-Agent for Peroxide cure system helps Reduce Peroxide dosage, gives Better State of Cure.

Dosage 1.5~3 phr

## **Polyolefin's (POE) & EVA**

- 1) Significant improvement in State of Cure
- 2) Gives Higher Modulus
- 3) Increases Tensile Strength
- 4) Improves Compression set
- 5) CoAgent for Peroxide cure system helps Reduce Peroxide dosage, gives better State of Cure

Dosage 2~4 phr

## **CR – Chloroprene Rubber**

- 1) Significant Improvement in Scorch Safety compared to thiourea system
- 2) Improved Elongation & Tensile

Dosage 1~1.5 phr

Similar to HVA2®  
HVA2® is a registered trademark of DuPont USA