

SIN RUBTECH® POLYMER BOUND PREDISPERSED DTDM – 80G

Product Description

Composition:	A proprietary predispersed 80% 4,4` - dithio – bis - dimorpholine in a 20% elastomeric / processing aids binder specially formulated for use in EPDM, NR, SBR, BR formulations
Appearance:	White Granules.
Density:	Approx. 1.23 g/cm ³ .
ML 1+4 @ 50°C	< 70
Moisture Content:	< 1.0 %
Melting Point: (of active DTDM)	> 120 8C
Storage Stability:	At least 2 years under normal storage conditions.
Packing:	18 kg nett in sealed PE bag in a carton box.

Recommendations and Applications

SIN RUBTECH® polymer bound predispersed DTDM – 80G is recommended where higher productivity, more eco-friendly material and better dispersion are required. This often translates to a lower bottom-line costing.

The active ingredient DTDM is one of 7 popular sulphur donors, the others being CLD, MBSS, DPTT, OTOS, TMTD & TESPT. Only DTDM, TESPT and CLD function purely as sulphur donors and not simultaneously as accelerators.

Sulphur donors are of course used in Semi-EV and EV cure systems to replace elemental sulphur, DTDM has 13.6% active sulphur and is a popular choice since weight by weight comparison of all the sulphur donors, DTDM gives one of the highest crosslink density and usually does not give a bloom problem as in TMTD & DPTT. DTDM is also used as a “compatibiliser” in EPDM blends. The EPDM is first heat mixed with DTDM to graft the DTDM onto the EPDM polymer back bone forming a vulcanisation precursor. Such EPDM can there be blended with say NR and their vulcanisate properties can be enhanced.

Some typical cure systems using our DTDM – 80G are illustrated.

I	Semi - EV		PHR	II	EV - System		PHR
	SIN RUBTECH®	ISE – 75G	2.00		SIN RUBTECH®	S – 80G	0.75
		DTDM – 80G	0.60			DTDM – 80G	1.60
		CBS – 70G	<u>0.85</u>			CBS – 70G	<u>1.40</u>
			<u>3.45</u>				<u>3.75</u>
III	Sulphur - Less		PHR				
	SIN RUBTECH®	DTDM – 80G	1.5				
		MBTS – 80G	<u>2.0</u>				
			<u>3.5</u>				

Dosage

The active DTDM is used 0.5 to 1.0 PHR in Semi-EV cure systems and higher levels of 1.5 to 3.0 PHR in EV and sulphurless cure systems.

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