

**SIN RUBTECH® POLYMER BOUND
PREDISPERSED S – 80G****Product Description**

Composition:	A proprietary predispersed 80% soluble rhombic sulphur in a 20% elastomeric / processing aids binder specially formulated for use in EPDM, NR, SBR, BR formulations
Appearance:	Yellow Granules.
Density:	Approx. 1.46 g/cm ³ .
ML 1+4 @ 50°C	< 70
Moisture Content:	< 1.0 %
Melting Point: (of active S)	> 119 °C
Storage Stability:	At least 2 years under normal storage conditions.
Packing:	22 kg nett in sealed PE bag in a carton box.

Recommendations and Applications

Predispersed S-80G is recommended where a more eco-friendly material, higher productivity and better dispersion is required. This often translates to lower bottom-line costing.

The active ingredient, rhombic sulphur (S₈) or soluble sulphur, is still today the most common curative agent for unsaturated elastomerics. The solubility of S₈ is typically as given below:

	Solubility of S ₈		
	NR	SBR	EPDM
25°C; PHR	1.4	1.1	0.3
93°C; PHR	7.1	8.8	2.6

Therefore if a NR compound contains more than 1.4 PHR of S₈ the sulphur will bloom after the compound is cooled down to room temperature.

The use of S – 80G in semi – EV systems is especially beneficial as in a 1.5 PHR S powder curative system, the use of 1.5 PHR S – 80G in a 1:1 substitution means that the raw final mix will not give sulphur bloom as the active sulphur ingredient is only 1.2 PHR.

Sulphur powder tends to cake up into “rocks” if left in warehouses with bags stacked up. Sulphur is difficult to disperse on open mills as if the sulphur powder is compressed in the nip between bare metal rolls, they become “rocks” sulphur. In normal open mill mixing of sulphur, a hole free rubber band must first be formed before addition of sulphur powder.

Banbury mixing of sulphur is also difficult because of S₈'s low melting point. At > 120°C S₈ melts and if agglomerated will not readily disperse and on dumping and cooling down, the agglomerated S₈ will recrystallise and present pips and bloom problems.

Our predispersed S-80G eliminates above problems. In 2-step mixing where S₈ is added on open mills, the use of S-80G can reduce mixing time typically from 5' to 2'.

In at least 1 known case, the use of S-80G added 30” before banbury drop, a final mix in 1-step was made possible.

Dosage

Recommended initially to try S-80G in weight-to-weight substitution of S₈ powder. Dosage can be 0.3 PHR to 3 PHR up to 55 PHR for ebonites.

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