SOVEREIGN CHEMICAL

Technical Data Sheet

Rubbond RR90

Manufacturer: TWC Rajsha Chemicals Private, Ltd.

Classification: Reinforcing Phenol Formaldehyde Resin

CA Nomenclature: Cashew nut shell liquid (CNSL) modified phenol formaldehyde resin

Specification Properties	Value	Test Methods
Ash Content, % at 950ºC	0.5 maximum	ASTM D4574
Free Phenol, %	2 maximum	ASTM D1312
Incline Plate Flow, mm at 125°C	130-160	ASTM D4242/T34
Melting Point Clear/Final, ºC	66-76	ASTM 1519/T01
Moisture Content, KF, %	0.5 maximum	ASTM E203
Softening Point, R&B, ºC	80-105	D6493/E28
Typical Properties	**Value**	**Test Methods**
Physical Form	Red brown pastille	Visual
Specific Gravity	1.11-1.21	Typical

> APPLICATIONS

Uses: RUBBOND RR90 resins could be used as reinforcing agents for rubber compounds containing natural rubber (NR), styrene-butadiene rubber (SBR), butadiene rubber (BR), nitrile-butadiene rubber (NBR), ethylene propylene diene monomer (EPDM) rubber and chloroprene (CR) rubbers for the manufacture of treads and sidewalls of tires, window sealing strips of cars, rubber rollers, floor coverings, brake linings, oil-resistant seals, heels and soles of shoes, hard hose materials, and typewriter / paper platen rollers.
As a reinforcing material, the use of RUBBOND RR90 resin in rubber compounds can improve the hardness, tear resistance, abrasion resistance, tensile strength, reduced Mooney viscosity and prolonged scorch time properties. CNSL, tall oil and alkylphenol modified resins are expected to have better compatibility with rubber compounds so that accelerated filler dispersions with improved processability of rubbers could be achieved.

Rubbond RR90 resin should be used along with another methylene donor, such as hexamethylenetetramine (HMT) or hexamethoxymethylmelamine (HMMM), in the rubber compounding applications. To achieve an optimum reinforcement in rubber compounds, these reinforcing resins should be added at a level of about 5-15% weight. In the rubber compound mixing process, to avoid pre-vulcanization and, to achieve good scorching property, Rubbond RR resins (as methylene acceptors) should be added during the first stage of mixing. Methylene donors, such as HMT or HMMM, should be added together with sulfur and accelerators at the final mixing stage. With the addition of hexamethylenetetramine, Rubbond RR resins impart maximum reinforcement and heat resistance properties in synthetic elastomers, especially NBR compounds and adhesives.

> PACKAGING AND STORAGE

Packaging: 25 kg (55.1 lb.) bags.

Shelf Life: 1 year from date of manufacture if stored as indicated below.

Storage: Store in unopened original packages in a cool dry place.

Specification Date: November 7, 2025 (Supersedes July 17, 2018)

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