

# RUBBOND RR160

## TECHNICAL DATA SHEET

**Issue No**  
**001**

**Revision Date**  
**01.12.2018**

**Product - Trade Name**

RUBBOND RR160

**Classification**

Phenolic Novolak Resin

**Composition**

Modified Phenol-Formaldehyde Novolak reinforcing resins with low free Phenol and without Hexamethylenetetramine.

**Physical properties**

Form : Amber to Orange Pastille

Sp. Gr. @ 25°C : 0.95 – 1.00

**Chemical Properties**

Phenolic Reinforcing Resins - RUBBOND Series	
Resin	RUBBOND RR-160
Modifier	Alkyl Phenol
Softening Point (°C, R&B)5°C / Min	101 - 113
Ash Content (% , 750°C/2hrs)	0.1 Max
Free Phenol (%)	< 1

**Applications**

RUBBOND RR160 resin 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.

As a reinforcing material, the use of RUBBOND RR160 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 alkyl-phenol modified resins are expected to have better compatibility with rubber compounds so that accelerated filler dispersions with improved processability of rubbers could be achieved.

**Use in Rubber Compounds**

RUBBOND RR160 resin products should be used along with another methylene donor, such as hexamethylenetetramine (HMT) or hexamethoxymethylmelamine (HMMM), in the rubber compounding applications. In order 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 also, to achieve good scorching property, RUBBOND RR resins (as methylene acceptors) should be added during the second stage and at a temperature around the softening point of the resin. The methylene donors, such as HMT or HMMM, should be added together with sulfur and accelerators at the final mixing stage.

**Packaging**

25 Kg (Net weight) in paper bags

**Shelf Life**

1 Year from the date of manufacture under the normal storage conditions

**Storage**

Store in a cool and dry storage area in original sealed container

**Health and Safety Information**

Before handling this material:

- Refer to the Safety Data Sheet (SDS) prior to use
- Wear gloves, safety glasses and dust masks
- In the case of skin contact, wash with soap and water.

**IMPORTANT!** The information presented herein, while not guaranteed, was prepared by technical personnel and is true and accurate to the best of our knowledge. No warranty or guaranty, express or implied is made regarding performance stability or otherwise. This information is not intended to be all inclusive as the manner and conditions of use, handling, storage and other factors may involve other and additional safety and performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer.

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