# RUBBOND® RR160

**TECHNICAL DATA SHEET**

**Issue No** 001/02

**Revision Date** 01.12.2022

**Product - Trade Name**

**RUBBOND® RR160**

**Classification**

Phenolic Novolak Resin

**Composition**

Modified Phenol–formaldehyde Novolak reinforcing resins with low free Phenol and without Hexamethylenetetramine.

**(Phenolic Reinforcing Resins RUBBOND® Series- Alkyl Phenol modified Resin RUBBOND® RR-160)**

**Physical properties:**

| Parameter | Specification |
|---|---|
| Physical Form | Amber to orange pastille |

**Chemical Properties:**

| Parameter | Specification | Test Method |
|---|---|---|
| Sp. Gravity@25 °C | 1.155±0.05 | D1817 |
| Softening Point, °C (R & B) 5 °C/min | 100-120 | D6493/E28 |
| Ash Content, % (@850 °C, 1Hr.) | 0.1 Max | D4574 |
| Free Phenol, % | 1.0 Max | D1312 |

**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, 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® 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 hexa methoxy methylmelamine (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 first stage of mixing. The methylene donors, such as HMT or HMMM, should be added together with sulfur and accelerators at the final mixing stage.

**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.

**Packaging**

25 Kgs in HDPE laminated paper bag

**Storage**

Stable for one year, when stored at ambient temperature in original sealed container & in well ventilated place

**Shelf Life**

12 Months from the date of manufacture

**REACH Compliance:**

Material is meeting the REACH compliance.

**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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