Vulkanol®
RC 200

Function
Antistatic plasticizer to prevent accumulation of electrostatic charges on natural and synthetic rubber products as well as on plastics, particularly PVC.

Product description

Composition: fatty alkyl ether of polyethylene glycol
Appearance: colourless to yellowish, slightly turbid liquid
Density, 20 °C: 0.93 g/cm³
Discoloration: none
Physiological properties: see safety data sheet

Use

Mode of action: Vulkanol RC 200 increases electrical conductivity and reduces surface and volume resistivity of rubber vulcanizates, lowering their resistivity from the insulating range (10^9 ohm x cm and higher) into the antistatic range (10^8 ohm x cm to 10^6 ohm x cm). Vulkanol RC 200 is compatible with all conventional plasticizers and PVC stabilizers and can be used in all kinds of rubber and PVC compounds. Due to its high heat stability, Vulkanol RC 200 is particularly suitable for use in PVC. There is no discoloration of the vulcanizate when Vulkanol RC 200 is used at normal processing temperatures.

Approvals:
Germany: BfR XIV, XXXVI
EU: Commision Regulations (EU) No. 10/2011, No. 1183/2012
USA: FDA § 175.105, § 176.170, § 176.180, § 176.210, § 181.30
Switzerland: SR 817.023.21

Processing:
During mixing it is recommended to add Vulkanol RC 200 together with the fillers. As high doses of Vulkanol RC 200 may have an accelerating effect on the cure, slight adjustments of the accelerator system may be necessary. Improvement in conductivity is not only dependent on the quantity of Vulkanol RC 200 used, but also on compound composition, types of filler, mixing, and curing conditions.

During storage Vulkanol RC 200 tends to separation already at room temperature. Below 20°C Vulkanol RC 200 can solidify and cannot be pumpable anymore. The product will not be destroyed by temperatures below 0°C. Solidified or sedimented material should be warmed up carefully to max. 50°C for a short period of time and be homogenized before using.
Dosage: For most purposes a dosage from 6-11 % on the quantity of rubber is sufficient. For compounds containing carbon black there is mostly a significant increase in conductivity at a low dosage (ca. 3 % is sufficient). Light-colored compounds containing white fillers in larger quantities require higher dosages of Vulkanol RC 200. The limit of concentration below which no migration of Vulkanol RC 200 to the surface occurs is dependent on the composition of the compound. Generally, it is around 10 % of the used quantity of rubber.

Before adding it to latex compounds, Vulkanol RC 200 should be diluted with water in proportion 1:5 or 1:6. This is best done by stirring Vulkanol RC 200 gently and gradually into the water until a milky-white to yellowish emulsion is formed, which then can be easily incorporated into the latex compound.

Applications: Rubber and PVC mixes for, e.g. anti-static cots and aprons, printing roller sleeves, driving belts, conveyer belts for mining, tire equipment, fuel hoses, flooring, cable compounds.

Packing
180 kg metal drums on 720 kg skid

Storage stability
In original closed containers under cool and dry conditions 365 days from date of production.

Handling
For additional handling information on Vulkanol RC 200 please consult current safety data sheet.