

## **AUTOCLAVE VULCANIZING NATURAL RUBBER (NR)**

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### **DESCRIPTION**

Technoline N45 is autoclave vulcanizing natural soft rubber (NR) resistant to abrasion and corrosion in aggressive environments. Regarding to the requirements, the thickness of the rubber may change between 3 - 6 mm. It is suitable for free steam and hot water vulcanization.

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### **APPLICATION**

Technoline N45 is recommended as a protective lining for steel equipments that are exposures to high chemical attack. It can be used in storage tanks and reaction vessels that are in various temperature ranges. You can consult our general supervisor for details.

Grit blasting of SA 2 1/2 as specified in DIN EN ISO 12944-4 and a roughness grade “medium (G)” as specified in DIN EN ISO 8503-1 must be achieved; minimum surface roughness  $R_z = 50 \mu\text{m}$ . After blasting, the formation of new rust must be prevented by suitable measures, e.g. immediate application of a primer. The substrate temperature should be between 10 - 30 °C, dew point distance min. 5 K. Relative air humidity  $\leq 75 \%$ .

For stainless steel and grey cast iron, the single-component Primer 1 and the single-component Primer 2 are applied instead of the pre-coat compound. Spread the pre-coat compound on the substrate and then apply the N45 adhesive AD. For stainless steel and grey cast iron, spread the Primer 1 on the substrate, followed by the Primer 2 and then apply two coats of the N45 Adhesive AD.

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### **VULCANISATION**

It is cured under 4 Atm pressure at 140°C for 330 minutes with steam and 240 minutes with hot air. After vulcanization, it is cooled under 4 Atm pressure for approximately 360 minutes.

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### **USAGE**

- Slurries, pumps
- Petrochemical and fertilizer plants
- Mining facilities
- Washing units
- Storage tanks
- Piping systems

### **PROPERTIES**

- Smooth surface features
  - Abrasion resistant
  - Resistant to various chemicals and oil
  - Dirt-proof and hygienic
  - Suitable for steel
  - Available in black and brown color
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*All data mentioned on this technical data sheet are product descriptions. They are the result of general experience and experiments and don't take any specific application into account. No further demands may be derived from these data.*

## AUTOCLAVE VULCANIZING NATURAL RUBBER (NR)

## TECHNICAL PROPERTIES

Description	Value
Color	Black
Hardness, Shore A	45 ± 5 (DIN 53505)
Elongation	>650 (DIN 53504)
Tear Strength Load at Break	>22 MpA (DIN 53504)
Abrasion	120< mm <sup>3</sup> (DIN 53516)
Density	1.3 ± 0,02 gr/cm <sup>3</sup> (ISO 1183-1)
Maximum Operation Temperature	+100, - 40°C
Shelf Life	3 months in -5°C

## TRANSPORT AND STORAGE

Material should be used latest within 90 days after production under normal conditions. The use of sheets, with hardness higher than of 30 Shore A is not recommended. Therefore the material should be stored at cold storage area for longer periods.

## TESTING

3 kV/mm spark test.

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