



Bonding Systems and Installation

Specifically designed two part bonding systems are available from Weir Minerals. Please consult your local representative for advice on the most suitable bonding method.

Nitrile: Resistance to organic oils and chemicals

Specifying the right lining material for oil or chemical service used to be a compromise. Natural rubber gives good abrasion resistance, but is not suitable for oil immersion. Normal nitrile-based rubbers offer excellent oil resistance, but their poor wear performance limits their use in high abrasion applications.

Linagard® NBR rubber is a nitrile based rubber specifically formulated to give good abrasion resistance in the presence of oils and chemicals. Linagard® NBR rubber also exhibits excellent high temperature service and can be used up to 110°C (230°F) with suitable adhesives, or where mechanical fixing is employed.

Design Features

- Resistant to mineral / vegetable oils
- Resistant to chemicals, greases and aliphatic hydrocarbons
- Excellent resistance to high temperature, thermal ageing and fatigue
- Good resistance to wear
- Low permeability to gases

Applications

- Linings for mining applications, fertiliser works and sand processing circuits where oil-based reagents are used
- Pump linings and impellers for the chemical industry
- Rubber coating for transmission belts

Size/Availability

- Standard Sheet size: 9.25m x 1.23m nominal (approx. 30ft x 4ft)
- Standard thickness range: 3.0mm to 30.0mm (approx. 1/8" to 1 3/16")

Typical Physical Properties

PROPERTY	TEST STANDARD	LINAGARD® NBR
Polymer Type		NBR
Hardness (IRHD)	ISO 48 - 2010	55
Modulus @ 500% (MPa)	ISO 37 - 2011	4.0
Tensile Strength (MPa)	ISO 37 - 2011	11.8 (1711 psi)
Elongation at Break (%)	ISO 37 - 2011	660%
Tear Strength (N/mm)	ASTM D624-00 - 2012	19.2 (110 lbf/in)
Specific Gravity	ISO 2781 - 2008	1.08
Resilience (%)	BS 903. Part A8 1990	45%
Operating Temperatures (continuous use)		-20°C to +110°C / -4°F to +230°F