

LINATEX® premium rubber Linard 60

<u>Linard hd & hds</u> <u>LINAGARD BB</u> <u>LINAGARD NBR</u>

LINAGARD FG LINATEX® VS rubber

# LINATEX® premium rubber

Linatex® is a 95% natural rubber that exhibits outstanding resilience, strength and resistance to cutting, tearing and abrasion. With over 80 years experience in handling aggressive materials, Linatex is still ranked as the premium wear resistant rubber for sliding or wet abrasion service.

### **FEATURES**

- Proven 'Best in Field' performance in fine slurry abrasion
- Excellent resistance to cutting and tearing
- High resilience and low modulus
- Resistance to a wide range of Chemicals

### **APPLICATIONS**

The uses of Linatex® premium rubber are almost unlimited

- Pipe lining
- Chute lining
- Tank linings
- Hydrocyclones
- Pumps
- Hoses
- Valve liners
- Belting

	TEST STANDARD	LINATEX®
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48 – 1994	38
Modulus @ 500% (MPa)	ISO 37 – 2005	2.0
Tensile Strength (MPa)	ISO 37 – 2005	25 (3618 psi)
Elongation at Break	ISO 37 – 2005	830%
Tear Strength (N/mm)	ISO 34 – 2004 (Method C)	44 (250 lbsf/in)
Specific Gravity	BS 903: Part A1: 1995	0.96
Resilience	BS 903: Part A8: 1990	83%
Operating Temperatures (Continuous use)		-40°C to +70°C / -40°F to +158°F
Abrasion resistance (dry)	ISO 4649 - 1985 DIN 53516	
Abrasion resistance (wet)	Modified DIN 53516	
Color		Red

# Linard 60

Linard® 60 is a silica-reinforced natural rubber product uniquely designed to provide high resilience with good cut, tear and abrasion resistance.

### **FEATURES**

- Excellent anti-sticking and ainto-build up properties
- Unsurpassed flexibility for hard rubber compound
- Excellent resistanc to cutting by sharp edged products
- Good wet abrasion resistance

- Screen panels: where Linard 60 superior resilience minimises plugging and blinding
- Skirting rubber: Linard 60's unique combination of features make it ideal for skirting rubber applications
- Abrasive environments where sticking and/or build-up are major issues

## **Typical Physical Properties**

	TEST STANDARD	LINARD 60
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48 – 1994	60
Modulus @ 500% (MPa)	ISO 37 - 2005	9.5
Tensile Strength (MPa)	ISO 37 – 2005	27 (3916 psi)
Elongation at Break	ISO 37 – 2005	690%
Tear Strength (N/mm)	ISO 34 – 2004 (Method C)	103 (588 lbsf/in)
Specific Gravity	BS 903: Part A1: 1995	1.10
Resilience	BS 903: Part A8: 1990	70%
Operating Temperatures (Continuous use)		-40°C to +75°C/ -40°F to +167°F
Color		Red

# Linard hd & hds

The Linard® HD range of products are natural/

synthetic rubber blends specifically designed to exhibit exceptional toughness without compromising natural elasticity

#### **FEATURES**

- Superior strength and resilience for severe abrasion
- Exceptional resistance to chunking and gouging
- Ideally suited for dry or damp applications where there is heavy impact
- Good noise and vibration dampening properties

- Screen decks and underpans for severe applications in the mining extractive industries
- $\bullet$  Transfer chutes in which heavy duty impact due to particle size is a major problem
- Protective liners for pneumatic transportation of materials

Typical Physical Properties				
	TEST STANDARD	LINARD® HD60	LINARD® HD70	LINARD® HDS
Polymer Type		Natural / Synthetic	Natural / Synthetic	Natural / Synthetic
Hardness (IRHD)	ISO 48 – 1994	60	70	70
Modulus @ 300% (MPa)	ISO 37 – 2005	6.0 MPa	7.0 MPa	
Modulus @ 500% (MPa)		•••		10.0 MPa
Tensile Strength (MPa)	ISO 37 – 2005	21.4 (3100 psi)	21.4 (3100 psi)	22.8 (3300 psi)
Elongation at Break	ISO 37 – 2005	470%	450%	580%
Tear Strength (N/mm)	ISO 34 – 2004 (Method C)	90 (513 lbsf/in)	96 (548 lbsf/in)	100 (570 lbsf/in)
Specific Gravity	BS 903: Part A1: 1995	1.09	1.14	1.14
Resilience	BS 903: Part A8: 1990	55%	54%	57%
Operating Temperatures (Continuous use)		-40°C to 75°C / -40°F to +167°F	-40°C to 75°C / -40°F to +167°F	-40°C to 75°C / -40°F to +167°F

# **LINAGARD BB**

Linagard® BB is a Bromo Butyl based rubber that has been specifically formulated to provide a cost effective lining solution for aggressive chemical applications involving acids, alkalis and high temperatures.

### **FEATURES**

- Excellent resistance to inorganic chemicals
- Excellent UV and ozone resistance
- Excellent resistance to high temperatures
- Low gas permeability

- Acid leach tanks
- Chemical storage tanks
- Thickener tank linings
- Moulded chemical pump casings

Typical Physical Properties		
	TEST STANDARD	LINAGARD® BB
Polymer Type		Halogenated Butyl Rubber
Hardness (IRHD)	ISO 48 -1994	55
Modulus @ 300% (Mpa)	ISO 37 - 2005	5.5
Tensile Strength (MPa)	ISO 37 - 2005	7.0 (1016 psi)
Elongation at Break	ISO 37 - 2005	400%
Tear Strength (N/mm)	ISO 34 -2004 (Method C)	35 (210 lbsf/in)
Specific Gravity	BS 903: Part A1: 1995	1.58
Resilience	BS 903. Part A8: 1990	27%
Operating Temperatures (Continuous use)		-40°C to +120°C / -40°F to +248°F
Color		Black

## LINAGARD NBR

Linagard® NBR is a nitrile based rubber specifically formulated to give good abrasion resistance in the presence of oils and chemicals. Linagard® NBR 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. FEATURES / BENEFITS

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

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

#### **Typical Physical Properties** LINAGARD® NBR **TEST STANDARD** Polymer Type **NBR** Hardness (IRHD) 55 ISO 48 - 1994 Modulus @ 500% (MPa) ISO 37 - 2005 4.0 Tensile Strength (MPa) ISO 37 - 2005 11.8 (1711 psi) Elongation at Break ISO 37 - 2005 660%

ISO 34-2004 (Method C)

BS 903: Part A1: 1995

BS 903: Part A8: 1990

19.2 (110 lbsf/in)

-20°C to +110°C /

-4°F to +230°F

1.08

45%

Orange

# LINAGARD FG

Tear Strength (N/mm)

Operating Temperatures

Specific Gravity

(Continuous use)

Resilience

Color

Linagard® FG is a high quality natural rubber compound manufactured from FDA (Food & Drug Administration 177.2600) approved ingredients. It is designed for applications requiring safe long term food contact and wear resistance.

### **Features**

- Food safe
- Non-marking
- Excellent resistance to wet abrasion
- Excellent cut and tear resistance

#### **Applications**

- Lining in areas of food processing
- Pharmaceuticals and cosmetics industry
- Linatex hose and valve manufacture
- Gasket industry

#### **Typical Physical Properties** LINAGARD® FG **TEST STANDARD** Polymer Type Natural Rubber Hardness (IRHD) ISO 48 - 1994 40 Modulus @ 500% (MPa) 3.5 ISO 37 - 2005 Tensile Strength (MPa) ISO 37 - 2005 20.0 (2900psi) **Elongation at Break** ISO 37 - 2005 750% Tear Strength (N/mm) ISO 37 - 2005 45 (257 lbsf/in) Specific Gravity 0.99 BS 903: Part A1: 1995 Resilience BS 903. Part A8: 1990 88% **Operation Temperatures** -40°C to +70°C/

## LINATEX® VS rubber

Color

(Continuous use)

Linatex® VS is an uncured natural rubber compound designed specifically for use in fine slurry applications where hot bonding is the preferred method of installation

-40°F to +158°F

White

### **FEATURES**

- Proven 'best in class' wear perfomance in fine slurry abrasion when compared to other uncured rubbers
- Suitable for hot bonding
- Delivers lowest cost of ownership
- Ideally suited for autoclave curing and compression moulding
- 6 month shelf life

- Pipelines
- Chutes
- Tank linings
- Hoses

# **Typical Physical Properties**

	TEST STANDARD	LINATEX® VS
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48 -1994	40
Modulus @500% (MPa)	ISO 37 – 2005	3.2
Tensile Strength (MPa)	ISO 37 – 2005	21.5 (3118 psi)
Elongation at Break	ISO 37 – 2005	750%
Tear Strength (N/mm)	ISO 34 – 2004 (Method C)	43 (245 lbsf/in)
Specific Gravity	BS 903: Part A1: 1995	0.95
Resilience	BS 903: Part A8: 1990	83%
Operating Temperatures (Continuous use)		-40°C to +70°C / -40°F to +158°F
Color		Red