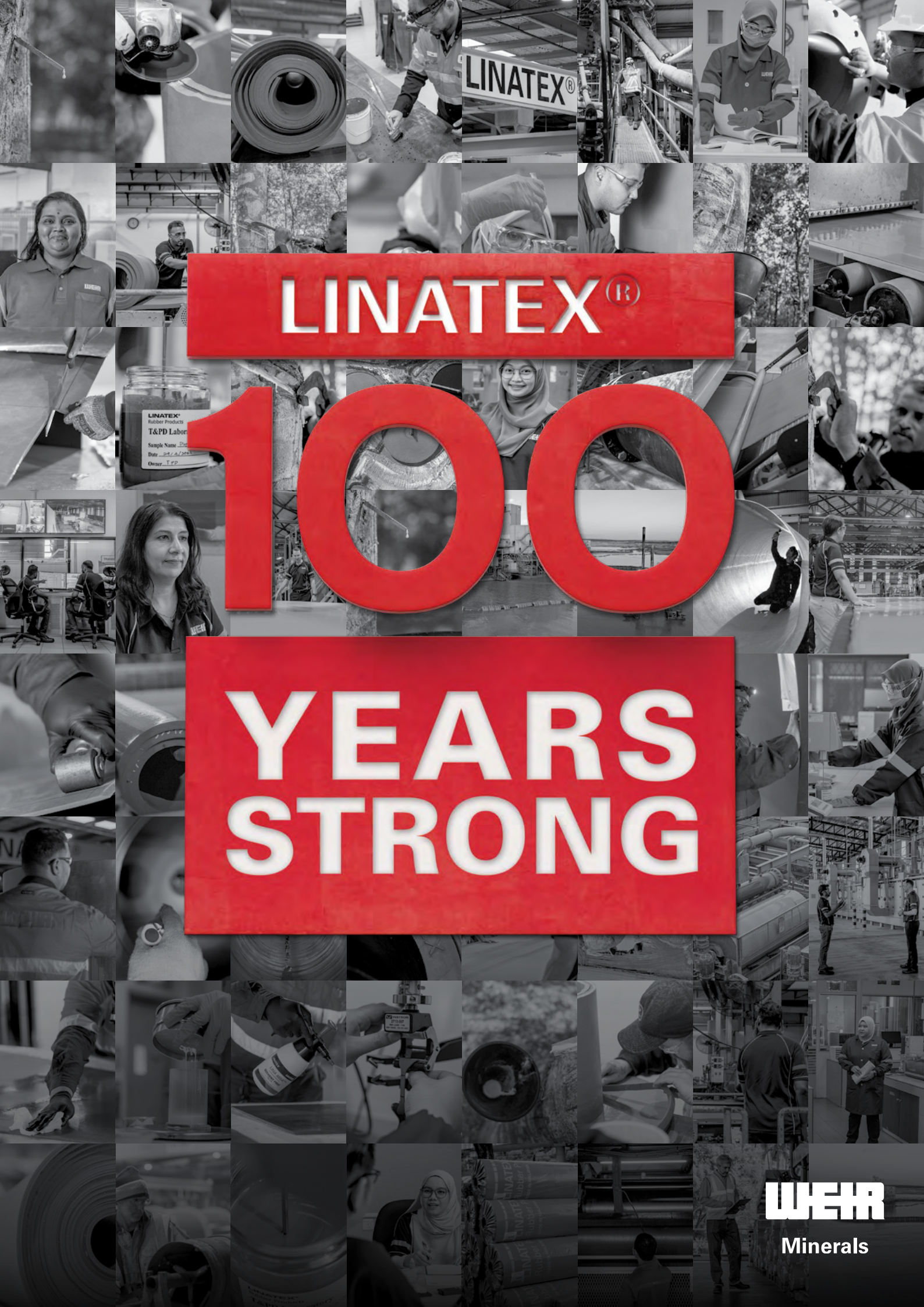
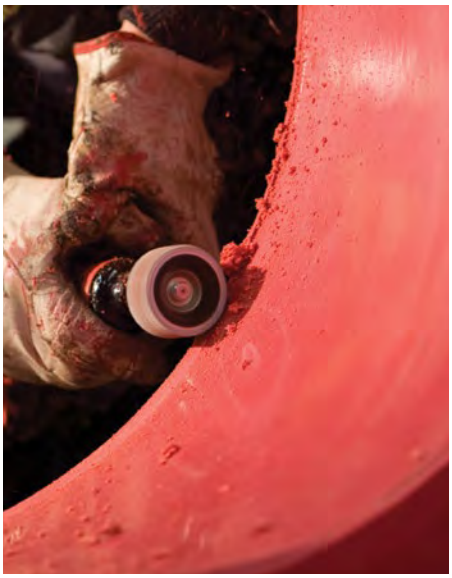

LINATEX®
LINATEX®
100
YEARS
STRONG
WEIR
Minerals

Linatex® Premium Rubber is a unique combination of the strength and resilience of natural rubber, enhanced by our twenty-first century manufacturing expertise.

The Linatex® rubber range provides unmatched wear performance in the toughest abrasion environments.



With a history dating back to the first processing of commercial rubber in Malaysia, Bernard Wilkinson's invention of Linatex® rubber in the 1920s revolutionised the industry.

First patented in 1923 as a protective lining used in highly abrasive and corrosive applications in the tin mining industry, Linatex® rubber products became the first line of defense against wear in ALL stages of the mine site, from pit through to tailings.

While its 95% latex formula and unique manufacturing process have remained unchanged for 100 years, our continuous equipment modernisation and future-proofing makes Linatex® the most sustainably manufactured rubber on the market.

Our Linatex® premium rubber is a proprietary vulcanised natural gum rubber, produced through a unique compounding process, using high quality natural latex. It exhibits outstanding strength, resilience, and resistance to cutting and tearing, providing superior performance in wet abrasion conditions compared to other wear materials.

And our quality control is second-to-none as Linatex® premium rubber is produced in only one factory in the world making it exceptionally reliable and unlike anything else on the market.

By using the highest quality natural latex direct from local rubber plantations, combined with our proprietary manufacturing process, we deliver reduced operational down time, reduced maintenance costs, improved safety and increased throughput for the mines.

Linatex® rubber products have been developed to meet the demanding performance requirements of a variety of industries. Our scientists continue to develop new and improved materials, helping us to deliver unparalleled value and performance.

Sheet Rubber

Our global presence combined with our vast experience across several industries allows us to confidently provide a complete solution to your needs.

The Linatex® Rubber Range

Linatex® Premium Rubber: A 95% natural rubber product manufactured using a proprietary liquid phase compounding process that exhibits outstanding resilience, strength and resistance to cutting, tearing and abrasion. There is no equivalent.

The Linacure® Rubber Range

The Linacure® range has been developed to give our customers the high performance they have come to expect from using Linatex® rubber products in applications where uncured rubber is preferred.

Linacure® 40: An uncured natural rubber with proven differentiated wear performance when compared to other uncured natural rubber products. Specifically designed for slurry applications where hot bonding is preferred.

Linacure® 60: A silica reinforced uncured natural rubber that provides the toughness you have come to expect from Linard® 60 rubber in applications where hot bonding is preferred.

The Linard® Rubber Range

The Linard® range has been developed for applications where heavy duty impact and wear resistance is required.

Linard® 60: A silica reinforced natural rubber product uniquely designed to provide high resilience with good cut, tear and abrasion resistance. These qualities come together to make Linard® 60 the perfect solution for many hard to solve problems. Suitable for moderate impact, wear, skirting applications and where sticking is an issue.

Linard® HD and HDS Rubber Range: Natural and synthetic rubber blends specifically designed to exhibit exceptional toughness without compromising natural elasticity. The range includes:

- Linard® HD60
- Linard® HD70
- Linard® HDS

Formulated to withstand severe abrasion in heavy duty applications. Suitable for primary screen decks and underpans, heavy duty transfer chute lining and heavy duty impact applications.

The Linagard® Rubber Range

The Linagard® range of rubber products has been developed for applications where more than just resistance to wear is required.

Linagard® NBR: A Nitrile based rubber reinforced with silica fillers specifically formulated to give unmatched wear performance. Suitable for applications where there is the presence of oils, chemicals and/or high temperature.

Linagard® BB: A Bromo Butyl rubber specifically formulated to provide excellent protection where resistance to acids, alkalis and corrosion is required to prolong service life. Suitable for rubber lining of acid tanks or in applications where protection against high temperature, ozone or UV is required.

Linagard® OSR: A high performance rubber compound designed to provide resistance to oils, wet abrasion and elevated temperatures. Initially designed to meet the rigorous demands of the oil sands industry, the unique properties of Linagard® OSR rubber make it suitable for many other applications.

Lining and fabricated products

The Linatex® rubber range is extremely versatile and suitable as protective lining for a variety of surfaces to minimise wear and corrosion of the base structure.

Typical lining applications include:

- Chute lining
- Pipe lining
- Vessel lining
- Hose construction

In addition to it's versatility, Linatex® rubber products are lighter and more flexible than other wear liner materials such as steel and ceramics. This aids with installation, that can be completed at one of our many service centres or on site. Linatex® rubber can be bonded quickly and permanently using our proprietary range of adhesives. Both our cured and uncured rubber products are manufactured in sheet form of varying thicknesses, allowing it to be cut or configured into any shape that the application may require.

Supported by a worldwide network of technical experts and service centres, Weir Minerals' distributors and applicators are fully trained and qualified to complete rubber linings and fabrications to suit your specific requirements.

Performance components (moulded products)

At Weir Minerals we manufacture high quality and complex mouldings utilising some of the largest presses commercially available. These facilities are strategically located across the globe to ensure local access to our product range.

Our highly experienced engineers continually develop innovative new moulds that utilise the unique properties of the Linatex® rubber range. This produces a final product that is precise and delivers exceptional performance. All of our moulded components are specifically designed to meet exacting fit and process requirements across an extensive range of industries and applications.

The range of performance components consists of replacement wear parts for use in process equipment across all elements of mining and industrial processes. This includes pumps, hydrocyclones, flotation cells, screens (moulded deck panels), conveyor systems, material handling systems and grinding mills.

We believe that our proven track record combined with our well developed industry experience and knowledge is what differentiates our moulding capabilities from other moulding competitors around the globe.

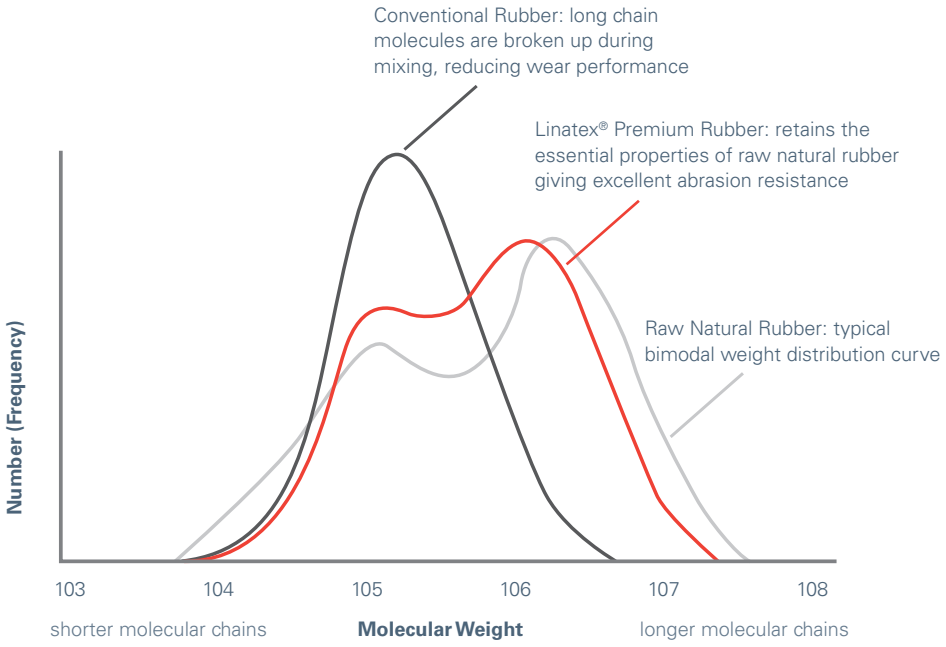
What makes Linatex® Premium Rubber better?

Natural rubber is an outstanding abrasion resistant material, particularly for handling slurries. The inherent properties of strength, resilience and cut resistance have a direct effect on wear performance.

Wear properties are at their best straight from the tree. The more work that is put into mixing the rubber, the more these properties are destroyed by the shearing and the breaking up of the long molecular chains.

Conventional dry processing is based on shearing the rubber during mixing. This reduces the average molecular weight distribution and leads to a significant drop off in properties and performance. The effect is similar to starting out with a perfectly good elastic band, cutting it up into short lengths then trying to join it back together again.

In contrast, our proprietary liquid compounding method gently blends the latex, causing minimal damage to the microstructure of the rubber. This results in a product fundamentally as nature intended; strong, resilient and resistant to abrasion.



Our commitment to our customers is simple - we aim to provide best-in-field performance and lowest cost of ownership. We do this by using the best quality natural rubber and by processing it with leading edge technology.

Cost of wear

Linatex® natural rubbers demonstrate exceptional performance over time in both wet and dry applications.

The charts below illustrate typical performance/replacement timelines for Linatex® premium rubber in comparison to other rubbers.

Although the initial upfront costs of using Linatex® rubber might be slightly higher, the superior performance of Linatex® rubber products results in a lower total cost of ownership. Meaning Linatex® rubber products pay for themselves over and over again.

Technology benefits

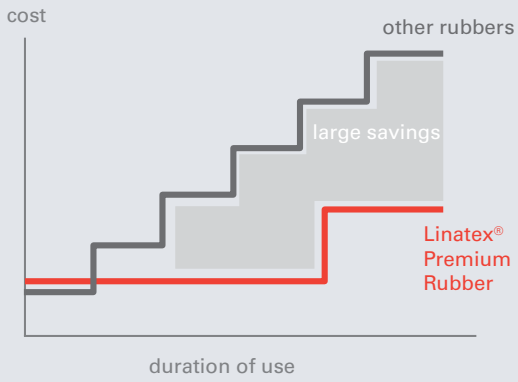
The processing of natural rubber from natural latex encompasses two distinct operations. The compounding and coagulation of the latex into uncured rubber crepe, and the pressing and curing of the uncured rubber into finished sheets.

For decades these processes have been accomplished by processing individual batches of product that, even with the utmost care, increases the potential for batch to batch variation.

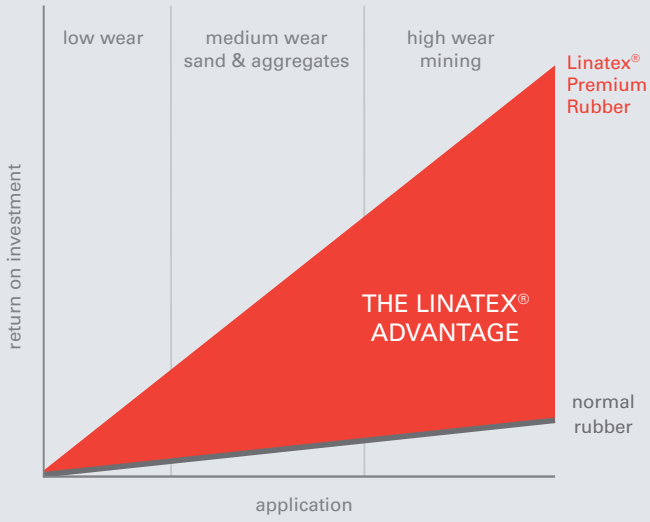
Our state of the art rubber processing facility achieves three key aims:

1. A 100% commitment to the preservation of superior natural rubber properties.
2. High technology automated processes, allowing improvements in volume and output.
3. Continuous processing, allowing better control, higher tolerances and improved consistency over batch processing.

Linatex® Premium Rubber vs Substitute Products in Wet Abrasion Environment



The Linatex® Advantage Over Normal Rubber



When using Linatex® rubber products, experience proves that the more aggressive the wear environment, the greater the return on investment.

PLEASE NOTE: Graphical representation for illustrative purposes only. Actual performance and cost savings may differ depending on factors such as the type, size, velocity and density of particles within the slurry that the rubber is exposed to.

Selecting the appropriate rubber

To select the most appropriate compound for an application, many factors need to be taken into account. Understanding the following factors is critical to making the right selection:

Particle size and weight

In order to achieve the best possible operating economy and the longest service life, it is usual to increase rubber thickness within certain limits to cope with larger and heavier particles.

Impact of particles from increasing height also requires increased rubber thickness to absorb compressive forces.

As the particle hits the surface, the rubber deforms, absorbing the kinetic energy of the particle. The resilient nature of rubber returns most of this energy to the particle, causing it to rebound. There will be little or no wear and no permanent deformation.

However, if the particle momentum is too great relative to the rubber thickness, the impact force cannot be absorbed and the rubber may cut or tear.

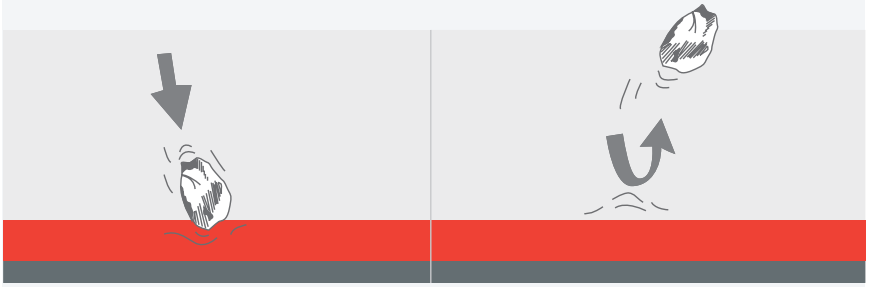
Velocity

In impact and sliding abrasion situations there is a critical speed above which elastomers are unable to recover and absorb energy. In this case, the product's resilience cannot be used to its full extent and the surface may deteriorate more rapidly.

For velocities above 10m/s (30ft/s) please consult your Weir Minerals representative.

This diagram demonstrates the reason rubber outperforms steel in many abrasive environments. It is the ability of the rubber to absorb an impact and then return the energy from the impact back to the particle that results in higher wear performance.

Abrasive particle striking non-elastic metal surface. Conversion of kinetic energy into impact, friction and noise.



Abrasive particle striking resilient rubber surface. Rubber deforms under load and returns most of kinetic energy to the particle without rate of wear experienced above.

Angle of impact and sliding wear

The angle of impact of the particle relative to the wear surface is of great importance in designing chutes, hoppers and rubber linings in general. The effect of different angles on wear rate can be significant.

At 90° impact angle, resilience is the major factor in resisting wear, but as the impact angle reduces to around 50°, tear resistance becomes more important. At very low impact angles, slurries are best handled by flat Linatex® sheet. This applies to pulley lagging and applications involving general sliding wear, where the abrasive force is tangential or in-plane to the surface.

Rubber hardness and physical properties

In broad terms, harder rubbers such as the Linard® range are preferred for combating high impact/cutting forces that often occur when handling coarse materials. Linatex® premium rubber, a low durometer rubber, gives excellent results when used in abrasive slurry service or sliding abrasion where fine to medium particles are being handled.

Other physical properties can often play a significant role in optimising performance. For example, good resilience is required when screening sticky materials. Rubber elongation is the important factor in the design of fabricated seals and bellows. The key to specifying the correct rubber is in selecting the best combination of properties to suit the application.

We will work with you to select the optimum rubber for your specific application.

Temperature

The temperature of the application in which the rubber will be used is important. The temperature limits of Linatex® rubber compounds vary. For example, natural rubbers are generally not recommended in applications above 70°C/158°F, whereas synthetic rubber compounds such as Linagard® BB and Linagard® NBR can be used in applications where temperatures exceed 100°C/212°F.

It is also important to take into account the temperature limits of the adhesive system being used if rubber lining is taking place. Most rubber adhesive systems are limited to temperatures up to 90°C/194°F.

Chemical environment

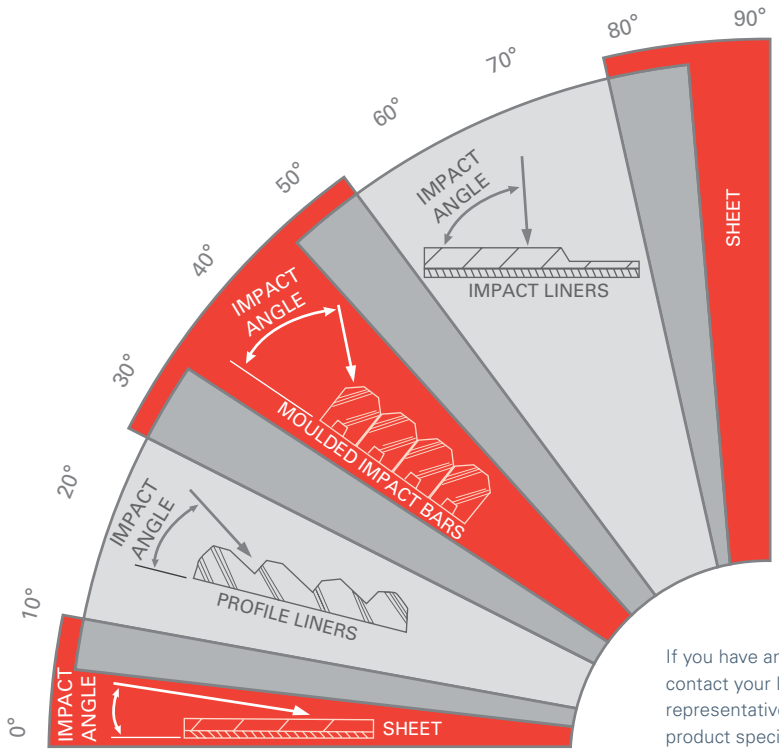
Different rubber compounds exhibit varying degrees of resistance to chemicals. Natural rubber, for example, is unsuitable for use in contact with hydrocarbons. In this situation, Linagard® rubber is more suited.

We offer a range of rubber materials that maximise potential applications in chemical environments. A chemical resistance reference chart for the Linatex® rubber range is available upon request. The chemical composition of the slurry or application should always be verified to confirm that the rubber being selected is suitable.

Noise and vibration

Occupational health and safety regulations in many countries require that industry complies with specific noise level standards for the protection of employees.

Rubber lined structures and fabrications play a prominent role in creating a more comfortable working environment. This is done by reducing noise and vibrations, often with the additional benefit of controlling dust dispersion. Weir Minerals has a large list of Linatex® rubber reference sites on which to draw their expertise and can advise the optimum design of rubber lining and estimate noise and vibration reduction for your project.



Selection Criteria for Impact Angle and Sliding Wear

If you have any questions, please contact your local Weir Minerals representative and/or the relevant product specification sheet.

Our engineering experts work closely with our global customer support and local service teams, creating an unrivalled support network to meet all of your unique needs.

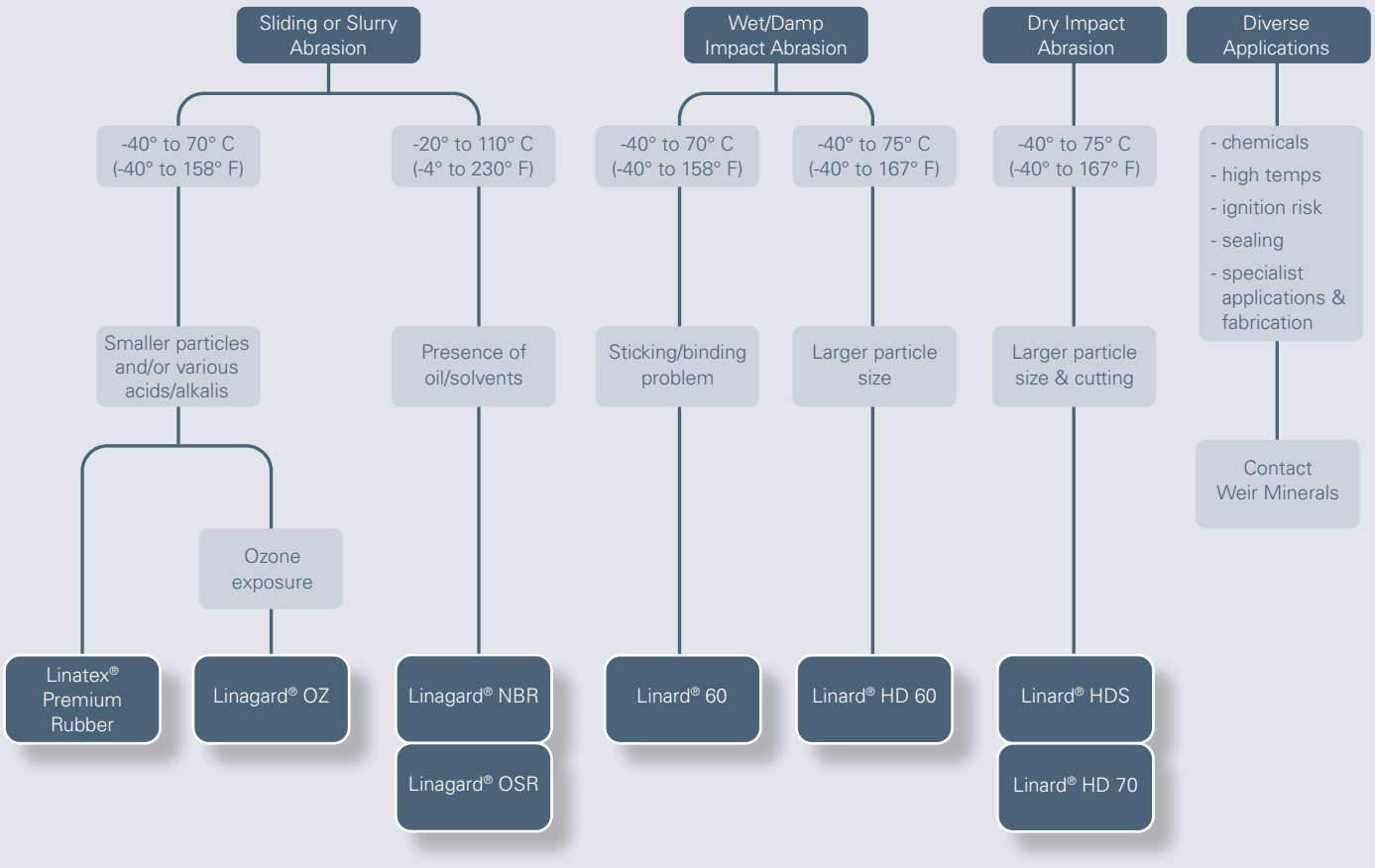
The complete solution

Many companies may claim to provide a rubber solution, however we deliver on this claim. We have over 100 years experience in the production, testing and application of rubber products into many industries. As both a supplier and applicator of our rubber products, we take full responsibility for all facets of the lining project.

We appreciate that the correct application of rubber is just as critical to success as the quality of the rubber employed. We utilise high quality proprietary adhesives and employ highly capable rubber liners. This ensures the high level of performance that customers have come to expect from Linatex® rubber products every time.

We have facilities in most of the major mining regions around the world, supported by an extensive list of distributors. This gives you the reassurance that when you purchase our products, expert support is close by.

Which Linatex® Rubber Product?



PLEASE NOTE: This chart indicates basic specifications only. Please consult Weir Minerals for specific applications.

Linatex® Rubber Range

Technical Specifications

Linatex® Premium Rubber

Technical Specifications

Design features

- Proven superior 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

Size/Availability

- Standard sheet size: 9.25m x 1.23m nominal (approx. 30ft x 4ft)
- Part sheets available to order
- Standard thickness range: 1.5mm to 30.0mm (approx. 1/16" to 1 3/16")
- Moulded components available from stock and made to order

Proven superior abrasion resistance

Linatex® premium rubber is a 95% natural rubber that exhibits outstanding resilience, strength and resistance to cutting, tearing and abrasion. The rubber of choice for a century in the handling of aggressive materials, Linatex® premium rubber is still the premium wear resistant rubber for sliding or wet abrasion service.

It is our unique liquid phase compounding process that gives Linatex® premium rubber its extraordinary physical properties and outstanding performance. Our process, unlike other processes, causes minimal mechanical disturbance to the molecular structure of the finished rubber, resulting in significant cost benefits to the user. With Linatex® premium rubber there is no equivalent when it comes to wet abrasion.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINATEX® PREMIUM RUBBER
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48-2 : 2018	37
Modulus @ 500% (MPa)	ISO 37 : 2017	2.0
Tensile Strength (MPa)	ISO 37 : 2017	23 (3336 psi)
Elongation at Break (%)	ISO 37 : 2017	830%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	44 (250 lbsf/in)
Specific Gravity	ISO 2781 : 2018	0.96
Resilience (%)	ISO 4662 : 2017	83%
Operating Temperatures (continuous use)		-40 °C to +70 °C/ -40 °F to +158 °F
Colour		Red

Linard® 60

Technical Specifications

Design features

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

Applications

- Hose linings
- Screen panels
- Skirting rubber
- Abrasive environments where sticking and/or build up are major issues

Size/Availability

- Standard sheet size: 9.25m x 1.23m nominal (approx. 30ft x 4ft)
- Part sheets available to order
- Standard thickness range: 3.0mm to 30.0mm (approx. ⅛" to 1 3/16")
- Moulded components available from stock and made to order

The resilient rubber for tough applications

Linard® 60 rubber is a silica-reinforced natural rubber product uniquely designed to provide high resilience with good cut, tear and abrasion resistance. The development of Linard® 60 rubber specifically set out to produce a rubber that retains the natural strength and nerve of latex, together with the toughness needed for handling coarse materials.

The unique combination of high resilience, resistance to deformation and wear makes Linard® 60 rubber the perfect solution for many hard to solve problems.

These characteristics also combine to give Linard® 60 rubber exceptional anti-stick and anti-build up properties.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINARD® 60
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48-2 : 2018	60
Modulus @ 500% (MPa)	ISO 37 : 2017	9.5
Tensile Strength (MPa)	ISO 37 : 2017	27 (3916 psi)
Elongation at Break (%)	ISO 37 : 2017	690%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	103 (588 lbsf/in)
Specific Gravity	ISO 2781 : 2018	1.10
Resilience (%)	ISO 4662 : 2017	70%
Operating Temperatures (continuous use)		-40°C to +75°C/ -40°F to +167°F
Colour		Red

Linard® HD Rubber Range

Technical Specifications

Design features

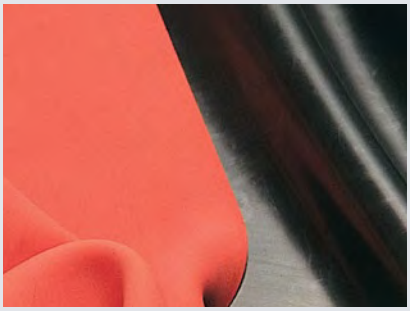
- Superior strength and resilience for severe abrasion
- Exceptional resistance to chunking and gouging
- Suited for dry or damp applications where there is heavy impact

Applications

- Dredge hose or duties where aggressive abrasion and/or large coarse angular particles are a major problem
- Screen decks and underpans for severe applications in the mining extractive industries
- Transfer chutes in which heavy duty impact due to particle size is a major problem

Size/Availability

- Sheet size (to 30mm thickness): 9.25m x 1.23m nominal (approx. 30ft x 4ft)
- Sheet size (>30mm thickness): 3.05m x 1.23m nominal (approx. 10ft x 4ft)
- Part sheets available to order
- Standard thickness range: 3.0mm to 50mm (approx. ⅛" to 2.0")



Where only the toughest and hardest rubbers survive

The Linard® HD rubber range of products are natural/synthetic rubber blends specifically designed to exhibit exceptional toughness without compromising natural elasticity. Linard® HD products are particularly suited to high impact applications or the handling of coarse aggregates, where cutting and gouging play a major part in the abrasive force.

The Linard® HD rubber range includes Linard® HD60, Linard® HD70 and Linard® HDS. Linard® HD60 rubber is ideally suited for the aqueous applications involving aggregates, in which sliding abrasion is the major concern. In applications such as primary screen decks and heavy duty transfer chutes, where cutting and slashing by sharp edged heavy particles is the leading cause of abrasion, Linard® HDS and Linard® HD70 rubbers are the recommended solutions within the Linatex® rubber family.

Formulated to withstand severe abrasion in dry or humid applications, the Linard® HD range provides superior protection to plant and machinery, guarding against premature failure and unscheduled maintenance.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINARD® HD60	LINARD® HD70	LINARD® HDS
Polymer Type		Natural / Synthetic	Natural / Synthetic	Natural / Synthetic
Hardness (IRHD)	ISO 48-2 : 2018	60	70	70
Modulus @ 500% (MPa)	ISO 37 : 2017	16.0	17.0	10.0
Tensile Strength (MPa)	ISO 37 : 2017	20 (2900 psi)	21.4 (3100 psi)	22 (3300 psi)
Elongation at Break (%)	ISO 37 : 2017	470%	450%	550%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	80 (457 lbsf/in)	96 (548 lbsf/in)	100 (570 lbsf/in)
Specific Gravity	ISO 2781 : 2018	1.09	1.14	1.14
Resilience (%)	ISO 4662 : 2017	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
Colour		Black	Black	Red

Linagard® BB

Technical Specifications

Design features

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

Applications

- Acid leach tanks
- Chemical storage tanks
- Thickener tank linings
- Pipe lining

Size/Availability

- Standard sheet size: 9.25m x 1.23m nominal (approx. 30ft x 4ft)
- Part sheets available to order
- Standard thickness range: 3.0mm to 30.0mm (approx. ⅛" to 1 3⁄16")
- Moulded components available from stock and made to order

Cost effective solutions for aggressive chemical applications

Linagard® BB rubber 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.

The wide range of experience we have gained in the supply and installation of rubber lining for a diverse range of chemical applications has played a pivotal role in the development of Linagard® BB rubber.

It is a product that provides exceptional chemical and corrosion protection with unmatched mechanical properties.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINAGARD® BB
Polymer Type		Halogenated Butyl Rubber
Hardness (IRHD)	ISO 48-2 : 2018	58
Modulus @ 500% (MPa)	ISO 37 : 2017	5.0
Tensile Strength (MPa)	ISO 37 : 2017	5.5 (798 psi)
Elongation at Break (%)	ISO 37 : 2017	400%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	30 (171 lbsf/in)
Specific Gravity	ISO 2781 : 2018	1.58
Resilience (%)	ISO 4662 : 2017	27%
Operating Temperatures (continuous use)		-40°C to +120°C / -40°F to +248°F
Colour		Black

Linagard® NBR

Technical Specifications

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)
- Part sheets available to order
- Standard thickness range: 3.0mm to 30.0mm (approx. ⅛" to 1 3⁄16")
- Moulded components available from stock and made to order

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.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINAGARD® NBR
Polymer Type		NBR
Hardness (IRHD)	ISO 48-2 : 2018	55
Modulus @ 500% (MPa)	ISO 37 : 2017	3.4
Tensile Strength (MPa)	ISO 37 : 2017	12 (1740 psi)
Elongation at Break (%)	ISO 37 : 2017	660%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	19 (108 lbsf/in)
Specific Gravity	ISO 2781 : 2018	1.08
Resilience (%)	ISO 4662 : 2017	45%
Operating Temperatures (continuous use)		-20°C to +110°C / -4°F to +230°F
Colour		Orange

Linagard® OSR

Technical Specifications

Design features

- Exceptional abrasion resistance
- Oil resistant
- Chemical resistant
- Weather resistant

Applications

- Oil sands
- Mining hose
- Tank lining

Size/Availability

- Standard sheet size: 9.25m x 1.23m nominal (approx. 30ft x 4ft)
- Standard thickness range: 3.0mm to 12.0mm (approx. ⅛" to ½")
- Moulded components available from stock and made to order

The new generation of rubber for the oil sands industry

Linagard® OSR rubber is a high quality rubber compound that provides resistance to oils, specific chemicals and weathering.

Linagard® OSR rubber has been specifically designed to meet the needs of the oil sands industry.

What differentiates Linagard® OSR rubber from other polychloroprene compounds is that it provides oil, chemical and weather resistance in addition to unmatched abrasion resistance.

Linagard® OSR rubber is available in both cured sheet format and as an uncured rubber compound.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINAGARD® OSR
Polymer Type		Polychloroprene
Hardness (IRHD)	ISO 48-2 : 2018	58
Modulus @ 500% (MPa)	ISO 37 : 2017	15.6
Tensile Strength (MPa)	ISO 37 : 2017	19 (2756 psi)
Elongation at Break (%)	ISO 37 : 2017	554%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	35 (200 lbsf/in)
Specific Gravity	ISO 2781 : 2018	1.37
Resilience (%)	ISO 4662 : 2017	55%
Operating Temperatures (continuous use)		-40°C to +100°C / -40°F to +212°F
Colour		Black

Linagard® OZ

Technical Specifications

Design features

- Excellent weathering and ozone, sliding abrasion and electrical resistance, and resistant to most inorganic chemicals
- Produced with the addition of antiozonant agents
- High resilience
- Remarkable cut and tear strength
- Low permanent set and high flexibility
- Good sound absorption and vibration dampening properties

Applications

- Linings for hydrocyclones and hoses handling dry powder
- Where static electricity build-up may cause increased ozone levels
- Fabricated or moulded components that are frequently exposed to sunlight

Size/Availability

- Standard sheet size: 9.25 m x 1.23 m nominal (approx. 30ft x 4ft)
- Part sheets available to order
- Standard thickness range: 1.5 mm to 30.0 mm (approx. 1/16" to 1 3/16")
- Moulded components available from stock and made to order

Excellent resistance to abrasion, UV light and ozone attack

Linagard® OZ rubber is a natural rubber vulcanisate formulated for excellent resistance to abrasion, UV light and ozone attack.

Linatex® premium rubber is well known for its properties of resilience, abrasion resistance and vibration and noise absorption.

In certain applications however, where high levels of ozone or UV light are present, unprotected pure natural rubber may be subject to surface deterioration. Linagard® OZ overcomes this potential limitation. Linagard® OZ rubber offers excellent resistance to sliding or slurry abrasion in combination with resistance to prolonged exposure to sunlight and high ozone concentrations.

No additional surface painting or shielding is necessary with Linagard® OZ rubber, as the rubber leaches it's own 'antiozonant' for protection. This makes it ideal for exposed wet-dry applications that are prone to scuffing and abrasions.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINAGARD® OZ
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48-2 : 2018	40
Modulus @ 500% (MPa)	ISO 37 : 2017	6.7
Tensile Strength (MPa)	ISO 37 : 2017	21 (3046 psi)
Elongation at Break (%)	ISO 37 : 2017	750%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	45 (257 lbsf/in)
Specific Gravity	ISO 2781 : 2018	0.98
Resilience (%)	ISO 4662 : 2017	83%
Operating Temperatures (continuous use)		-40°C to +70°C / -40°F to +158°F
Colour		Black

Linacure® 40

Technical Specifications

Wear resistant uncured rubber for fine slurry applications

Linacure® 40 rubber is an uncured natural rubber compound designed specifically for use in fine slurry applications where hot bonding is the preferred method of installation.

Using the same formulation principles employed in our industry standard Linatex® premium rubber, we have created a product that extensive tests confirm provides a differentiated wear performance when compared to competitor uncured natural rubber compounds.

Design features

- Superior wear performance in fine slurry abrasion
- Suitable for hot bonding
- Delivers lowest cost of ownership
- Ideally suited for autoclave curing and compression molding
- 6 month shelf life

Applications

- Pipelines
- Chutes
- Tank linings
- Hoses

Size/Availability

Standard sheet dimensions will vary within each Weir global region. Please contact your local Weir Minerals office to confirm.

- Standard thickness range: 3.0mm to 12.0mm (approx. ⅛" to ½")

Storage

The shelf life of the Linacure® 40 compound is dependent upon the temperature at which the compound is stored.

6 months at or below 40°C / 104°F.

Do not store under direct heat or sunlight.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINACURE® 40
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48-2 : 2018	40
Modulus @ 500% (MPa)	ISO 37 : 2017	4.3
Tensile Strength (MPa)	ISO 37 : 2017	21.5 (3118 psi)
Elongation at Break (%)	ISO 37 : 2017	730%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	43 (245 lbsf/in)
Specific Gravity	ISO 2781 : 2018	0.96
Resilience (%)	ISO 4662 : 2017	83%
Operating Temperatures (continuous use)		-40°C to +70°C / -40°F to +158°F
Colour		Red

Linacure® 60

Technical Specifications

Wear resistant, uncured rubber for tough slurry applications

Linacure® 60 rubber is a silica-reinforced natural rubber uniquely designed to provide high resilience with good cut, tear and abrasion resistance. The development of Linacure® 60 rubber specifically set out to produce a rubber that retains the natural strength and nerve of latex, together with the toughness needed for handling coarse materials.

Linacure® 60 rubber provides the performance benefits of Linard® 60 rubber in applications where hot bonding is the preferred method of installation. Linacure® 60 rubber provides excellent abrasion resistance in course slurry applications. It's inherent flexibility creates a rubber that has good anti-sticking and anti-build up properties making it an ideal solution for many hard to solve problems.

Design features

- Excellent anti-sticking and anti-build up properties
- Excellent resistance to cutting by sharp-edged products
- Good wet abrasion resistance

Applications

- Hose linings
- Pipe lining
- Abrasive environments where sticking and/or build up are major issues

Size/Availability

Standard sheet dimensions will vary within each Weir global region. Not available in some global locations. Please contact your local Weir Minerals office to confirm.

- Standard thickness range: 3.0mm to 12.0mm (approx. ⅛" to ½")

Storage

The shelf life of the Linacure® 60 compound is dependant upon the temperature at which the compound is stored.

6 months at or below 40°C / 104°F.

Do not store under direct heat or sunlight.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINACURE® 60
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48-2 : 2018	60
Modulus @ 500% (MPa)	ISO 37 : 2017	9.5
Tensile Strength (MPa)	ISO 37 : 2017	23 (3336 psi)
Elongation at Break (%)	ISO 37 : 2017	680%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	103 (587 lbsf/in)
Specific Gravity	ISO 2781 : 2018	1.1
Resilience (%)	ISO 4662 : 2017	70%
Operating Temperatures (continuous use)		-40°C to +75°C / -40°F to +167°F
Colour		Red

Linatex® HM

Technical Specifications

Design features

- Excellent resistance to wet abrasion
- High resilience
- Outstanding cut and tear resistance
- Low permanent set
- Resistance to a wide range of chemicals including oils and organics

Applications

- Specifically developed for the rubber belting industry

Size/Availability

- Standard sheet size: 9.25m x 1.23m nominal (approx. 30ft x 4ft)
- Standard thickness range: 1.5mm to 30.0mm (approx. 1/16" to 1 3/16")
- Moulded components available from stock and made to order

The new generation of rubber

Linatex® HM rubber has been specifically developed for the rubber belting industry as a product that exhibits the excellent performance features of Linatex® premium rubber with the additional benefit of dry abrasion resistance.

Made from natural latex, Linatex® HM rubber is produced using a unique manufacturing process ensuring superior abrasion resistant performance.

Linatex® HM rubber is not classed as an oil rubber compound, however this product exhibits superior resistance to oils and organics. Linatex® HM rubber has up to four times the kerosene resistance of Linatex® premium rubber.

Linatex® HM rubber is a high quality solution for applications where Linatex® premium rubber may not be considered.

Typical Physical Properties

PROPERTY	TEST STANDARD	LINATEX® HM
Polymer Type		Natural Rubber
Hardness (IRHD)	ISO 48-2 : 2018	40
Modulus @ 500% (MPa)	ISO 37 : 2017	3.5
Tensile Strength (MPa)	ISO 37 : 2017	24 (3480 psi)
Elongation at Break (%)	ISO 37 : 2017	750%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	44 (250 lbsf/in)
Specific Gravity	ISO 2781 : 2018	0.96
Resilience (%)	ISO 4662 : 2017	83%
Operating Temperatures (continuous use)		-40°C to +70°C / -40°F to +158°F
Colour		Red

Comparison of Typical Physical Properties

PROPERTY	TEST STANDARD	LINATEX® PREMIUM RUBBER	LINATEX® HM	LINARD® 60	LINARD® HD60	LINARD® HD70	LINARD® HDS	LINAGARD® BB	LINAGARD® NBR	LINAGARD® OSR	LINAGARD® OZ	LINACURE® 40	LINACURE® 60
Polymer		Natural Rubber	Natural Rubber	Natural Rubber	NR/ Synthetic Rubber	NR/ Synthetic Rubber	NR/ Synthetic Rubber	Halogenated Butyl Rubber	NBR	Polychloroprene	Natural Rubber	Natural Rubber	Natural Rubber
Hardness (IRHD)	ISO 48-2 : 2018	37	40	60	60	70	70	58	55	58	40	40	60
Modulus @ 500% (MPa)	ISO 37 : 2017	2	3.5	9.5	16	17	10	5	3.4	15.6	6.7	4.3	9.5
Tensile Strength (MPa)	ISO 37 : 2017	23	24	27	20	21.4	22	5.5	12	19	21	21.5	23
Elongation at Break %	ISO 37 : 2017	830%	750%	690%	470%	450%	550%	400%	660%	554%	750%	730%	680%
Tear Strength (N/mm)	ASTM D624-00 : 2020 (Die B)	44	44	103	80	96	100	30	19	35	45	43	103
Specific Gravity	ISO 2781 : 2018	0.96	0.96	1.1	1.09	1.14	1.14	1.58	1.08	1.37	0.98	0.96	1.1
Resilience (%)	ISO 4662 : 2017	83%	83%	70%	55%	54%	57%	27%	45%	55%	83%	83%	70%
Operating Temp (°C)		-40°C to 70°C	-40°C to 70°C	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C	-40°C to 75°C	-40°C to 120°C	-20°C to 110°C	-40°C to 100°C	-40°C to 70°C	-40°C to 70°C	-40°C to 75°C
Operating Temp (°F)		-40°F to 158°F	-40°F to 158°F	-40°F to 167°F	-40°F to 167°F	-40°F to 167°F	-40°F to 167°F	-40°F to 248°F	-4°F to 230°F	-40°F to 212°F	-40°F to 158°F	-40°F to 158°F	-40°F to 167°F
Colour		Red	Red	Red	Black	Black	Red	Black	Orange	Black	Black	Red	Red

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.

www.global.weir
linatex@mail.weir

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