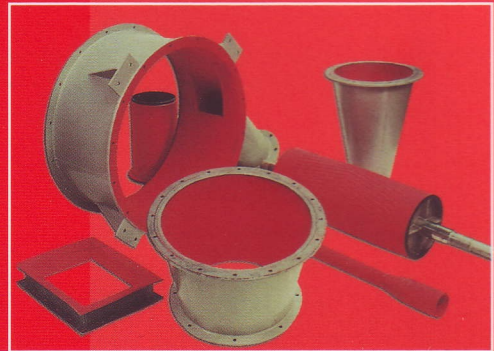


Rubber Sheet Products



INATEX

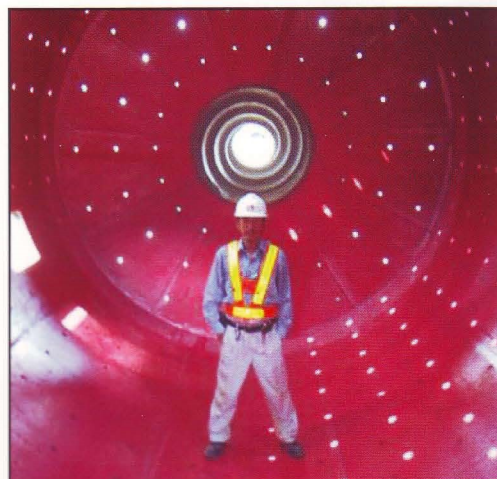


In today's markets, minimal downtime and maximum efficiency are key to higher profits. The use of quality rubber in sheet, fabricated or product form can contribute significantly to achieving these goals.

Performance Products

Linatex premium natural rubber has gained an enviable reputation worldwide for its resilience and wear resistant properties in the most demanding applications.

Linatex has a proven track record as the original red rubber and demonstrates many advantages over competitor rubbers and other wear materials. The use of Linatex low-hardness natural rubber to line metal work such as chutes, cyclones, separators, underpans and washer barrels, provides highly beneficial results in combating impact and abrasive wear.



Linatex rubber linings are used extensively to protect mineral processing equipment

Reduces Maintenance Cost

Maintenance is a function of wear in plant and machinery. Reduce the wear and your maintenance costs are less.

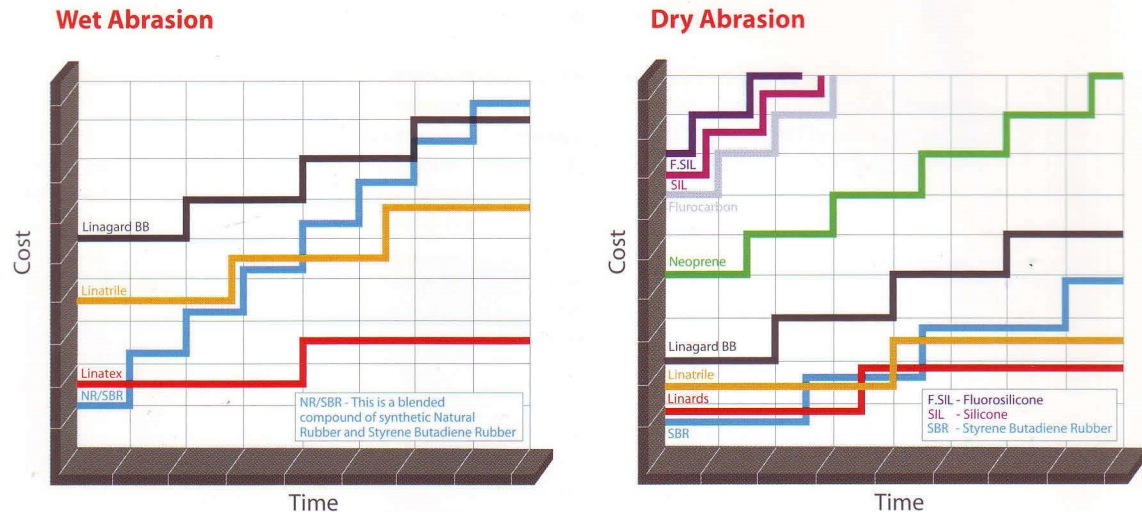
Prevents Corrosion

Chemical attack or corrosion following abrasion damage may also lead to plant breakdown. Linatex rubbers act as an extremely effective lining material, preventing unnecessary corrosion of the substrate.

Cost of Wear - Other Rubbers v Linatex Rubbers

LINEATEX

Linatex natural rubbers demonstrate exceptional performance over time in both wet and dry applications. This means maintenance costs are minimised as replacement is required less frequently. The charts below demonstrate typical performance/replacement time lines for Linatex in comparison with other rubber and wear resistant materials.



Graphs represent cost over a period of time, assuming constant fixed cost of renewal.

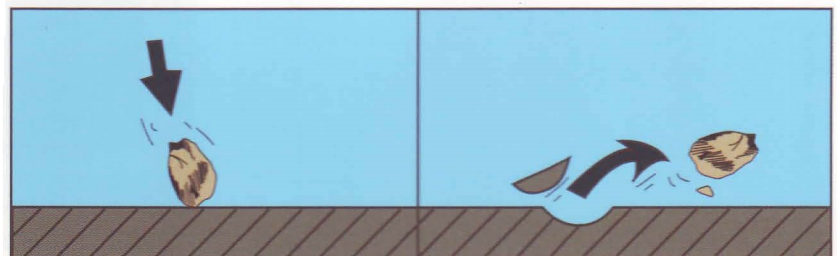
Improves Working Environment

Noise and vibration increase both machinery and operator fatigue alike. A quality rubber with excellent elastic properties will absorb much of the energy inherent in these physical wear indicators.

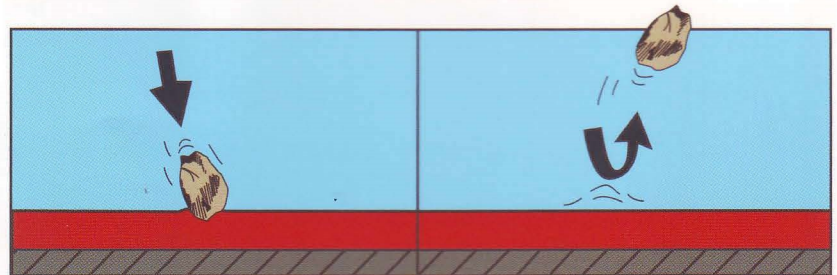
Versatile To Work With

Natural rubber is an extremely versatile material to work with. It is lighter than most wear materials and being flexible can be easily handled whether in the factory or on site.

Linatex has over 80 years experience in the design, fabrication and installation of rubber linings, engineered products and custom sealing. We can advise on the optimum use of materials to suit each application.



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.

The Best just got Better...

Linatex premium natural rubber is a 95% natural rubber vulcanisate, exhibiting outstanding strength, resilience and resistance to cutting and tearing, giving the very best performance in wet abrasion resistance.

The news is... the best just got better!

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.

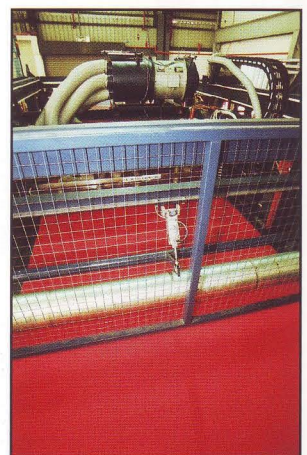
For decades these processes have been accomplished by processing individual batches of product, which even with the utmost care increases the potential for batch to batch variation.

Linatex have invested in creating a new rubber processing facility, which achieves three key aims:

- A 100% commitment to the preservation of superior natural rubber properties.
- High technology automated processes, allowing improvements in volume and output.
- The evolution from batch to continuous processing, allowing better control, higher tolerances and improved consistency.



New Continuous Press



Quality Control

Continuous Processing

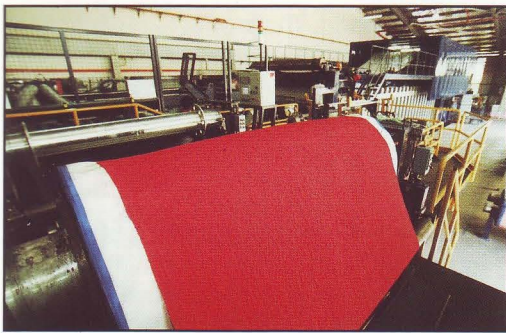
Linatex

The first phase of this plant investment has been to upgrade from batch to continuous processing of the uncured rubber compound.

The liquid phase compounding process has been fully automated. Coagulation of the compound latex is now heat assisted and the drying of the crepe is accomplished using microwave energy, all in a single computer controlled process.

Advanced Continuous Press Technology

As the compounded uncured rubber moves from the process operation to the pressing phase, the thickness of each sheet is digitally controlled to achieve thickness and uniformity which is consistently repeatable, or changeable according to requirements. The final thickness of the sheet can be controlled to an almost infinite degree, allowing repeatability without stopping or even slowing down the operation, as would be required with conventional batch press technology.



Crepe



Finished Product

Linatex Premium Natural Rubber is an amazing combination of natural rubber properties and twenty-first century manufacturing capability.

Moulded Products

Linatex has over the years demonstrated an impressive track record in solving problems using Linatex sheet rubber and fabrications. In response to a wider set of customer requirements, Linatex has also developed the capability to press-form Linatex rubber into more complex finished shapes.

The Linatex Concept Delivers More

Manufactured from original masterbatch using custom designed cavity moulds, the unique features and benefits of Linatex rubber are available in a wide range of moulded products. Products that offer superior, cost effective performance in applications across industry, from slurry handling to anti-vibration control. Linatex rubber mouldings are also increasingly being specified by original equipment manufacturers to meet the demands of their own markets.



Design and Manufacture

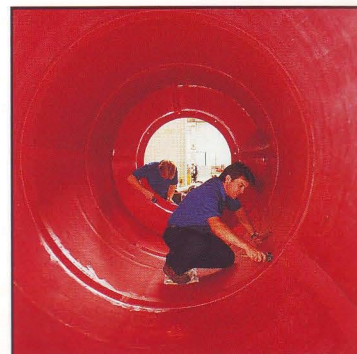
Each application is different. Whether the requirement is for a new product, or to replace an existing component, Linatex can advise on the optimum choice of rubber. Custom design products are limited only by press capacity, which currently ranges from 50 tonnes to 3000 tonnes force, amongst the largest available for commercial moulding worldwide.

Moulded products include:

- Replacement Industrial Components
- OEM Parts
- Slurry Pump Casing Liners & Impellers
- Cyclone Liners
- Linabars, Impact Panels & Profiles
- Screen Panels
- Valve Sleeves, Elbows & Bends
- Membranes
- Pump parts
- Other Mining and Mineral Processing Moulds



Exacting quality controls for latex and basic chemical additives are complimented by quality assurance procedures at each stage of the process. Linatex rubber manufacturing facility in Malaysia meets the requirements of ISO9001. Linatex customers can therefore rely on a consistent, no compromise product.



The bottom line however is performance. Linatex rubber has proven its performance in over eight decades of field applications around the world. The product's resilience and strength in comparison to other wear resistant materials considerably reduces unplanned maintenance caused by fatigue and wear. Our customers naturally expect the best. Linatex rubber delivers, naturally.

The Complete Solution

Linatex also manufacture and supply complementary, quality rubber elastomers for applications where Linatex rubber may not be suitable. Examples include the Linard range for heavy duty impact and wear and Linatril for resistance to oils and greases. Our combined experience across a variety of industries helps us provide complete solutions to our customer's problems. Product Data sheets are available for all Linatex rubber materials. Please refer to the back of this brochure or call your Linatex sales office.

What Makes Linatex Rubber Better?

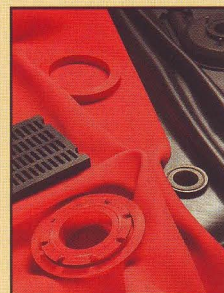
Pure natural rubber is an outstanding abrasion resistant material, particularly for handling slurries.

The inherent properties of strength, resilience and cut resistance have a direct effect on wear performance. These are attributed to a major proportion of naturally occurring long chain molecules, characterised by their high molecular weights.

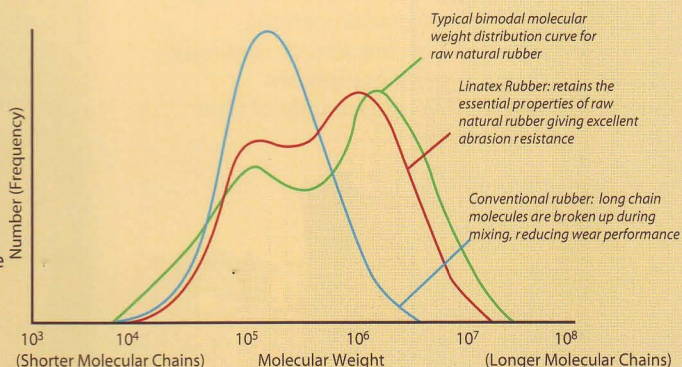
Wear properties are at their best straight from the tree: the more work that is put into mixing the rubber, the more these properties are destroyed by shearing and breaking up the long chains.

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

In contrast, Linatex's unique liquid phase 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.



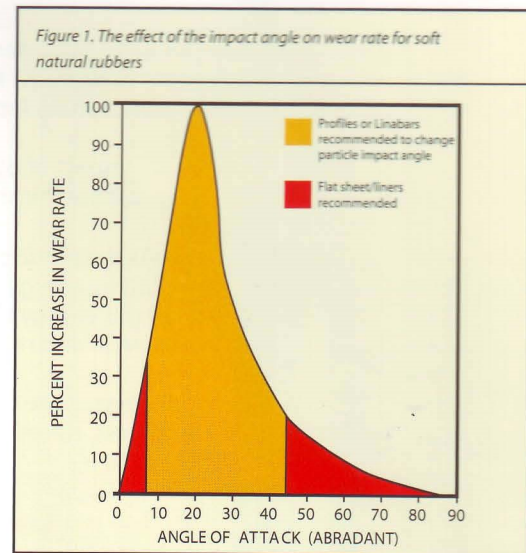
Molecular Weight Distribution Curve



Not All Rubbers are the Same

Selection of the correct rubber for your application will depend on a number of operational, physical and environmental factors:

- Angle of impact/sliding wear
- Velocity of particle
- Particle size and weight
- Rubber hardness and physical properties
- Temperature
- Chemical environment
- Noise and vibration



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. Figure 1 above demonstrates the effect of different impact angles on wear rate.

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 also applies to pulley lagging and applications involving general sliding wear, where the abrasive force is tangential or in-plane to the surface.

The progression from one style of lining to another is illustrated in Figure 2 and your nearest Linatex representative will be happy to make recommendations for your particular application.

Velocity

In the case of impact and sliding abrasion 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) consult our Technical Sales Staff.

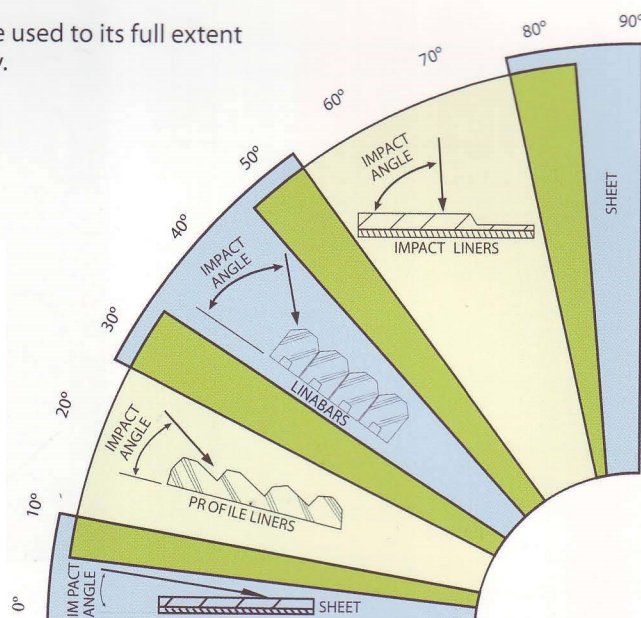


Figure 2

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.

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, a low durometer rubber, gives excellent results when used in abrasive slurry service or sliding abrasion, where fine to medium size particles are being handled.

However other physical properties often play a significant role in optimising performance. For example, good resilience is required when handling or screening sticky materials and elongation is an 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.



Linatex Rubber Linings protect this Sand Plant against the effects of wear and abrasion and so help extend equipment service life.

Selecting the Appropriate Rubber



Temperature

Linatex materials have a combined normal operating temperature range of -40°C to $+120^{\circ}\text{C}$ (-40°F to $+248^{\circ}\text{F}$). Please consult the relevant product technical data sheet for individual specification. For operating temperature outside the recommended range, please check with Linatex.

Chemical Environment

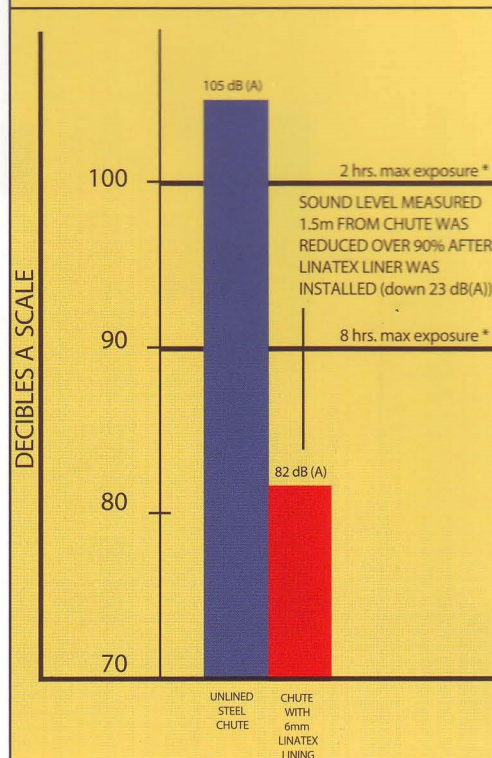
Different rubber compounds exhibit varying degrees of resistance to chemicals. Natural rubber, for example, is unsuitable for use in contact with hydrocarbons where a nitrile formulation is more suited. Linatex offers a range of rubber materials which maximise potential applications in chemical environments. A chemical resistance reference chart for the Linatex range is available upon request.

Noise and Vibration

Occupational safety and health regulations in many countries nowadays require that industry complies with certain noise level standards for the protection of employees. Rubber lined structures and fabrications play a prominent role in creating a more comfortable working environment by reducing noise and vibrations, often with the additional benefit of controlling dust dispersion.

Based on in-house research and experience, Linatex can advise optimum design of rubber lining and estimate noise and vibration reduction for your project. Figure 3 illustrates a typical example of noise reduction made possible with use of Linatex rubber linings.

Figure 3. Typical sound level comparison, minus 50 mm crushed rock cascading on chute



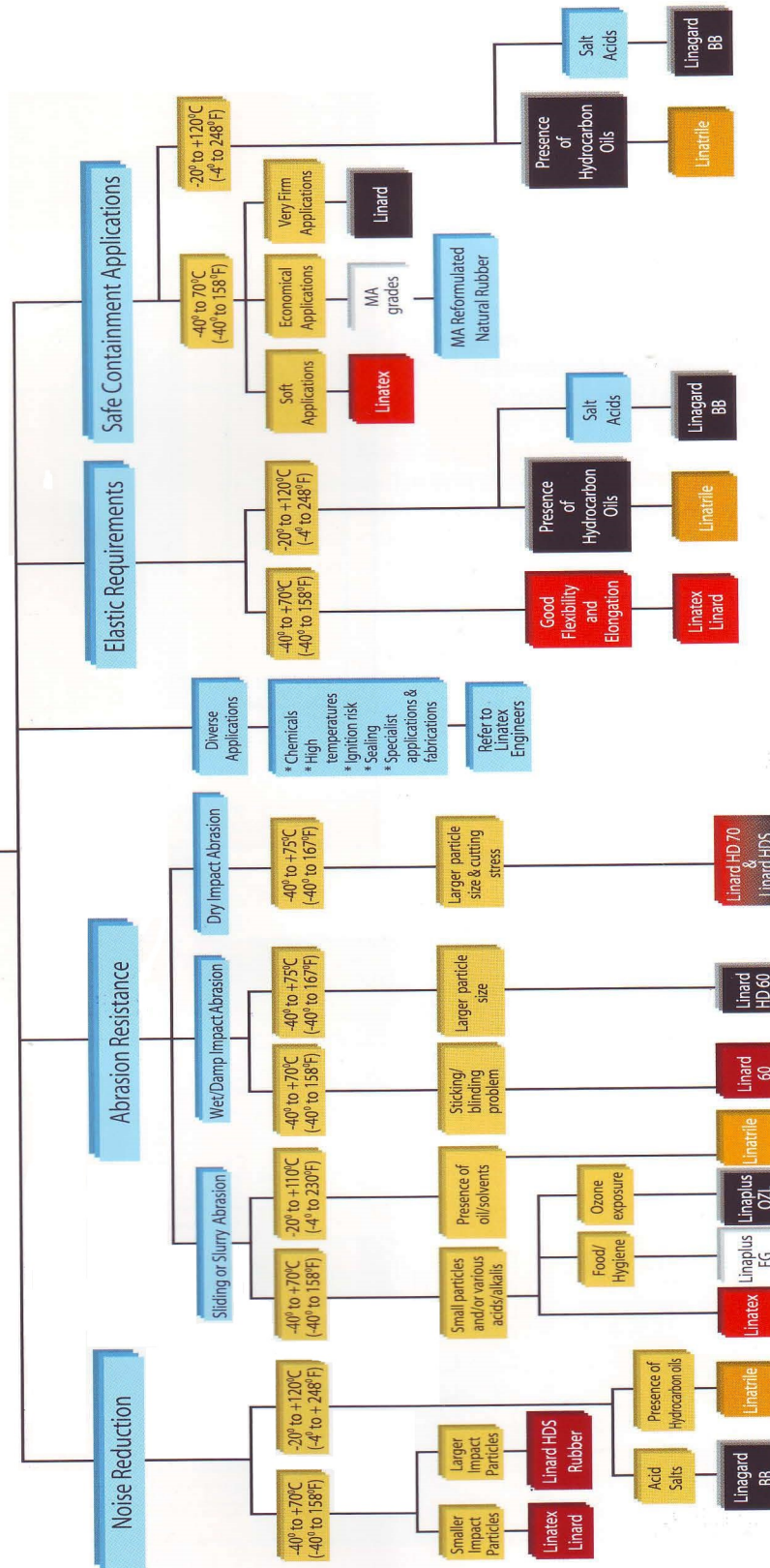
* Maximum continuous exposure to noise level, dB(A). US Federal Occupational Safety and Health Act of 1970.

Table 2: Thickness selection guide based on handling crushed stone

Maximum Particle Size		Minimum recommended thickness for a given material free fall											
		Rolling or Sliding		3'		4'		5'		6'		8'	
				No Impact		0.9m		1.2m		1.5m		1.8m	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/8-1/4	3-6	1/4	6	3/8	10	3/8	10	1/2	12	1/2	12	1/2	12
3/8-1/2	10-12	1/4	6	3/8	10	1/2	12	1/2	12	3/4	19	3/4	19
3/4-1	19-25	1/2	12	1/2	12	3/4	19	3/4	19	1	25	1 1/2	38
2	50	1/2	12	3/4	19	3/4	19	1 1/4	32	1 1/2	38	1 3/4	44
4	100	3/4	19	1	25	1 1/2	38	1 3/4	44	2	50	2 1/2	64
6	150	1	25	1 1/2	38	1 3/4	44	2	50	2 1/2	64	3	76
8	200	1 1/2	38	2	50	2 1/2	64	3	76	CONSULT LINATEX			
10	250	2	50	2 1/2	64	3	76	CONSULT LINATEX					
12	300	2 1/2	64	3	76	3 1/2	89	CONSULT LINATEX					

 Linatex rubber recommended
 Linard rubber recommended

Engineering Application



Note: This chart indicates basic specifications only. Please consult Linatex for specific applications.

Linatex Nitrile Compound (Linatrilite) and Butyl Compound (Linagard BB) have a superior elasticity and elongation than standard synthetic Nitriles or Butyls respectively.



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. From field experience, it will outlast polyurethanes, steel alloys and even Nihard liners and components, resulting in significant cost benefits to the user.

A Unique Product

Linatex is produced from fresh natural latex utilising a liquid phase compounding process which, unlike other processes, causes minimum mechanical disturbance to the molecular structure of the finished rubber.

It is this process that gives Linatex its extraordinary physical properties and outstanding performance.

The group's Linatex manufacturing facility meets the requirements of ISO 9001:2000 Standards.

- Excellent resistance to wet abrasion.
- Very high resilience.
- Remarkable cut and tear resistance.
- Low permanent set.
- Resistance to a wide range of chemicals.
- Excellent electrical resistance.
- Useful sound-absorption and vibration dampening properties.
- Good flexibility even at low temperatures assists handling and installation

Linatex Applications

The uses of Linatex are almost unlimited. From a complete range of anti-abrasion linings for material handling industries, to custom fabrications and moulded components, Linatex properties combine together to give optimum performance and reliability. The products sound absorption properties are used to good effect in improving the working environment, reducing noise levels that otherwise cause operator fatigue. Linatex isolation pads have also been specified to dampen unwanted vibration in applications ranging from buildings and sports halls to elevator assemblies.

Product Description

- A 95% pure natural rubber manufactured from fresh latex using a proprietary "liquid phase compounding" procedure.
- Resists wet abrasion. Resistant to most inorganic chemicals. Excellent shock, vibration dampening properties and low temperature flexibility.

Recommended Applications

Proven performance in slurry handling applications such as pipelines, chutes and tank linings, hydrocyclones, sumps, etc. Linatex is also used in valve and pump linings, hoses, screencloths and to solve a wide range of sealing problems.

Size/Availability

- Standard sheet size: 9.25 m x 1.23 m nominal.
- Part sheets available to order.
- Standard thickness range: 2.0 mm to 35.0 mm (approx. 1/16" to 1 3/8").
- Moulded components available from stock/to order.

Bonding Systems

One and two part bonding systems, depending on application method and required service, are available from Linatex. Please consult your local representative.

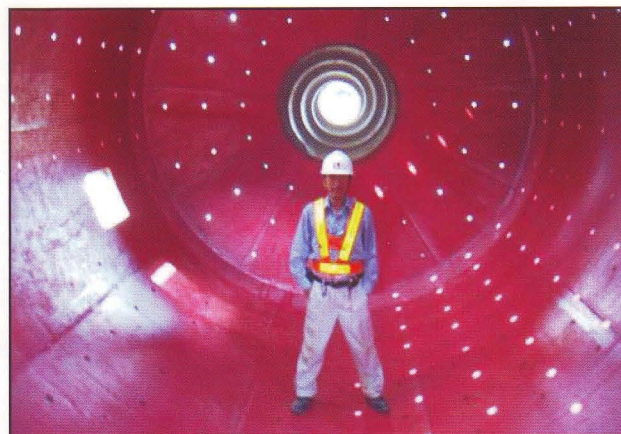
Storage

Recommended practice is to store away from direct heat and sunlight in accordance with 'ISO 2230:- VULCANISED RUBBER' – Guide to Storage'.



Material Specification

Physical Property	Test Standard	Typical Value
Colour		Linatex Red (Typical)
Polymer Type		Natural Rubber
Hardness (±5)	ISO 48-1994	38 IRHD
Tensile Strength	ISO 37-1994	26.6 MPa (3850 psi)
Elongation at Break	ISO 37-1994	810%
Tension Set	ISO 2285 - 1981	7%
Tear Strength	ISO 34 - 1994 Method C	44 N/mm (250 lbf/in)
Resilience	BS.903: Part A8	83%
Specific Gravity (±0.05)		0.97
Service Temperature Range		-40° C. to + 70° C / (-40° F to + 158° F)

**Tough and Flexible**

Linard 60 is a highly resilient, silica reinforced hard rubber which tackles difficult applications involving impact and abrasion where flexibility is important.

Specially Prepared for Demanding Applications

The development of Linard 60 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. Linard 60 finds its greatest utility in applications where enhanced movement of material on the rubber is desirable – for example where sticky or large amounts of fine materials are mixed together with larger particles.

- Outstanding resilience.
- Highly elastic.
- Excellent sealing characteristics.
- Unsurpassed flexibility for hard rubber.

The Problem Solver

Linard 60 has provided the solution in awkward screening applications, improving stratification efficiency due to its higher resiliency, while standing up to the wear produced by coarse material.

It is also unbeatable where rubber needs to be flexible but not easily deformed, for example as skirting on conveyor belts or as curtains or seals on road and floor sweepers.

This unique combination of high resilience and resistance to deformation makes Linard 60 the perfect answer in many hard to solve applications.

Linard 60: The resilient rubber for sticky problems.

Product Description

A silica-reinforced natural rubber product uniquely designed for high resilience combined with good cut, tear and abrasion resistance.

Recommended Applications

For a wide range of applications which require resistance to abrasion, chemical corrosion and cutting by sharp-edged particles. Its superior resilience minimises plugging and blinding when used in screening applications.

Size/Availability

- Standard Sheet size: 9.25 m x 1.23 m nominal. 9.25m x 1.23 m nominal.
- Sheet size (>35 mm thickness): 3.05m x 1.22 m nominal.
- PSheet size (>35 mm thickness): 3.05m x 1.22 m nominal.
- Standard thickness range: 3.0 mm to 75.0 mm (approx. 1/8" to 3.0")
- Moulded components available from stock/to order.

Fixing Systems

Bonding or mechanical fixing systems, depending on application method and required service, are available from Linatex. Please consult your local representative.

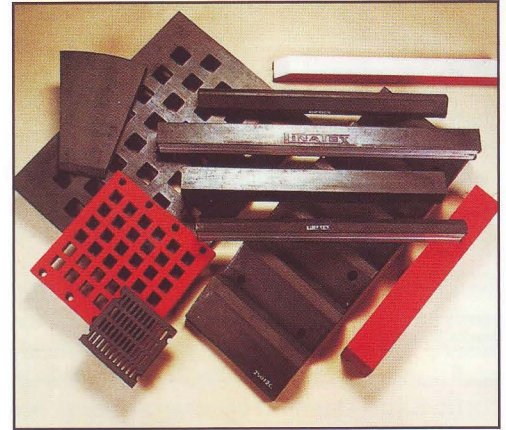
Storage

Recommended practice is to store in accordance with 'ISO 2230:- VULCANISED RUBBER' – Guide to Storage'.



Material Specification

Physical Property	Test Standard	Typical Value
Colour		Red
Polymer Type		Natural Rubber
Hardness (±5)	ISO 48-1994	61 IRHD
Tensile Strength	ISO 37-1994	27 MPa (3900 psi)
Elongation at Break	ISO 37-1994	690%
Tension Set	ISO 2285 - 1981	20%
Tear Strength	ISO 34 - 1994 Method C	103 N/mm (590 lbf/in)
Specific Gravity (±0.05)		1.10
Service Temperature Range		-40° C to + 175° C / (-40° F to + 167° F)



Protecting your Investment

Linard HD products are the harder rubber companions to Linatex. Formulated to withstand severe abrasion in dry or humid applications, Linard HD provides superior protection to plant and machinery, guarding against premature failure and unscheduled maintenance.

Features and Versatility

The Linard HD family has been developed using the latest natural/synthetic rubber technology to produce materials of exceptional resilience and toughness without compromising natural elasticity. Linard HD products are particularly suited to high impact applications and handling of coarse aggregates where cutting and gouging play a major part in the total abrasive force.

- Superior strength and resilience for severe abrasion.
- Low set – high elasticity.
- Good noise and vibration dampening properties.
- Versatile sheet and moulded components available to suit the application.
- Available in both 60 and 70 IRHD.

In-service Performance

Fields trials demonstrate Linard HD's ability to out-perform other hard rubber products. Applications include lining primary feed hoppers for processing dense ores, screens for heavy-duty service in the mining and extractive industries and lining hoses for pneumatic transport of materials. Linard HD rubber products are available as a standard range of sheets, liner plates and moulded elements to satisfy a wide range of materials handling needs.

Special sizes and profiles can also be made to order. Metal backing or bolt channels, incorporated to facilitate simple mechanical installation, are also available on moulded components. In the event of localised wear individual elements can be replaced economically.

Product Description

- Carbon black and/or silica reinforced natural/synthetic rubber blend.
- 60 and 70 IRHD hardness available.
- HDS, red silica only reinforced product available with improved physicals.

Recommended Applications

Recommended for heavy duty applications such as screen decks and transfer points, where resistance to abrasion is required in addition to protection against chunking, cutting and slashing by sharp-edged, heavy particles. Linard HD60 also offers good performance in aqueous conditions involving coarse aggregates.

Size/Availability

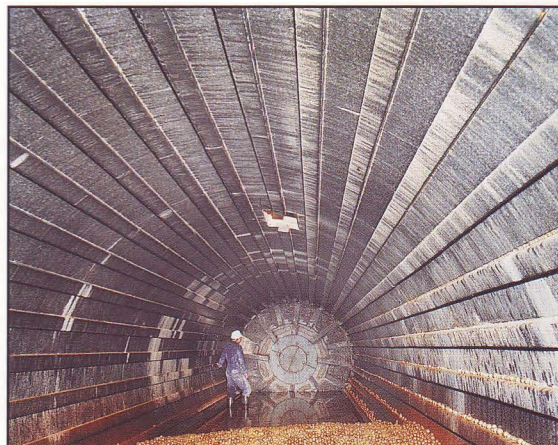
- Sheet size (to 35 mm thickness): 9.25 m x 1.23 m nominal.
- Sheet size (>35 mm thickness): 3.05 m x 1.22 m nominal.
- Part sheets available to order.
- Standard thickness range: 3.0 mm to 75.0 mm (approx. 1/8" to 3.0").
- Moulded components available from stock/to order.

Fixing Systems

Bonding or mechanical fixing systems, depending on application method and required service, are available from Linatex. Please consult your local representative.

Storage

Recommended practice is to store in accordance with 'ISO 2230:- VULCANISED RUBBER' – Guide to Storage'.



Material Specification

Physical Property	Test Standard	Typical Value		
HD Product		Linard HD60	Linard HD70	Linard HDS
Colour		Black	Black	Red
Polymer Type		Natural/Synthetic	Natural/Synthetic	Natural/Synthetic
Hardness (±5)	ISO 48-1994	60 IRHD	70 IRHD	70 IRHD
Tensile at Break	ISO 37-1994	21.4 MPa (3100 psi)	21.4 MPa (3100 psi)	22.8 MPa(3300psi)
Elongation at Break	ISO 37-1994	470%	450%	580%
Tension Set	ISO 2285 - 1981	20%	25%	25%
Tear Strength	ISO 34 - 1994 (C)	90 N/mm (500 lbf/in)	96 N/mm (548 lbf/in)	100 N/mm(570 lbf/in)
Resilience	BS.903: Part A8	55%	54%	57%
Specific Gravity (±0.05)		1.09	1.14	1.14
Service Temperature Range		-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)

**Protection Against Corrosion**

Chemical containment is not just a question of vessel construction. Specifying the correct lining system is also critical to protect against the potentially devastating effects of corrosion and so prolong service life.

The Linatex Group has gained wide experience in the supply and installation of rubber linings for a diverse range of chemical applications. This experience has led to the development of Linagard BB, a rubber with increased resistance to acids, alkalis and temperature.

Linagard BB Features

Linagard BB is a bromobutyl-based rubber that has been formulated specifically to provide a cost effective lining solution for more aggressive chemical applications. Linagard BB advantages include:-

- Good resistance to a wide range of inorganic chemicals, acids and oxygenated solvents
- Excellent resistance to higher temperatures
- Good tear strength
- Low gas permeability
- Excellent electrical resistivity
- Good weathering properties and resistance to ozone

Linagard BB Installation

Linatex will advise on the optimum method of installation to suit the project. Our operators can install the lining at one of our workshops or on site, as required.

Sheet materials are also available for user installation. The highest quality adhesives and/or corrosion resistance strapping are available to suit each application.

Linagard BB: Widens the options for aggressive chemical tank lining.

Product Description

A halogenated Butyl rubber based vulcanisate.

Recommended Applications

Recommended where resistance to acid or alkali and corrosion protection is required. Also for use in applications involving higher temperatures. Linagard BB has low gas permeability and good weathering resistance.

Size/Availability

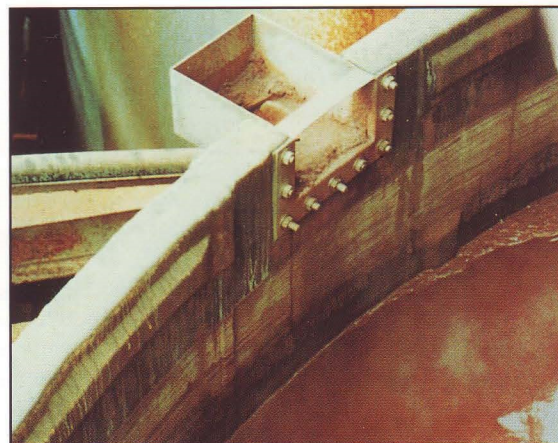
- Standard Sheet size: 9.25 m x 1.23 m nominal.
- Part sheets available to order.
- Standard thickness range: 2.0 mm to 35.0 mm (approx. 1/16" to 1 3/8").
- Moulded components available from stock/to order.

Bonding Systems

One and two-part bonding systems, depending on applications method and required service, are available from Linatex. Please consult your local representative.

Storage

Recommended practice is to store in accordance with 'ISO2230:- VULCANISED RUBBER' – Guide to Storage'.



Material Specification

Physical Property	Test Standard	Typical Value
Colour		Black
Polymer Type		Halogenated Butyl Rubber
Hardness (±5)	ISO 48-1994	55 IRHD
Tensile Strength	ISO 37-1994	10.0 MPa (3760 psi)
Elongation at Break	ISO 37-1994	580%
Tension Set	ISO 2285 - 1981	15%
Tear Strength	ISO 34 - 1994 Method C	40 N/mm (230 lbf/in)
Specific Gravity (±0.05)		1.42
Service Temperature Range		-40° C to + 120° C / (-40° F to + 248° F)



Superior Abrasion Resistance

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. Synthetic materials may tolerate oil, but their wear performance may leave something to be desired.

Linatex has developed Linatrile, a specially blended rubber formulated specifically to give good abrasion resistance in the presence of oils and chemicals. Linatrile 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

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

Diverse Applications

The range of Linatrile applications grows steadily. Typical examples include grain handling systems, linings in fertiliser works, pump linings and impellers for the chemical industry and linings of mining and sand processing circuits where oil-based reagents are used.

Linatrile has demonstrated its reliability in service, solving wear problems simply and cost effectively. So, next time you require a lining that performs in these applications, specify Linatrile by Linatex.

Product Description

A Nitrile (NBR) based vulcanisite reinforced with silica fillers.

Recommended Applications

Resistant to mineral/vegetable oils, greases, aliphatic hydrocarbons and other chemicals. Linatrilite exhibits good resistance to abrasion, withstands ageing and fatigue and has low permeability to gases.

Size/Availability

- Standard sheet size: 9.25 m x 1.23 m nominal.
- Part sheets available to order.
- Standard thickness range: 3.0 mm to 35.0 mm (approx. 1/8" to 1 3/8").
- Moulded components available from stock/to order.

Bonding Systems

One and two part bonding systems, depending on application method and required service, are available from Linatex. Please consult your local representative.

Storage

Recommended practice is to store in accordance with 'ISO 2230:- VULCANISED RUBBER'- Guide to Storage'.



Material Specification

Physical Property	Test Standard	Typical Value
Colour		Orange
Polymer Type		NBR
Hardness (±5)	ISO 48-1994	55 IRHD
Tensile Strength	ISO 37-1994	11.8 MPa (1720 psi)
Elongation at Break	ISO 37-1994	660%
Tension Set	ISO 2285 - 1981	20%
Tear Strength	ISO 34 - 1994 Method C	19.2 N/mm (110 lbf/in)
Resilience	BS.903: Part A8	45%
Specific Gravity (±0.05)		1.08
Service Temperature Range		-20° C to + 110 C / (-4° F to + 230° F)



Linatex natural 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. To overcome this potential limitation, Linatex introduced Linapplus OZL.

The Linapplus OZL Advantage

Linapplus OZL is a development of Linatex. It is produced with the addition of antiozonant agents. The result is a rubber that offers excellent resistance to sliding or slurry abrasion in combination with resistance to prolonged exposure to sunlight and high ozone concentrations. Linapplus OZL rubber is manufactured in our factory which meets ISO 9001:2000 requirements.

- Excellent weathering and ozone resistance.
- High resilience.
- Remarkable cut and tear strength.
- Excellent resistance to sliding abrasion.
- Low permanent set and high flexibility.
- Good sound absorption and vibration dampening properties.
- Excellent electrical resistance.

Linapplus OZL Versatility

Linapplus OZL continues the Linatex heritage of performance and versatility. Applications range from linings for hydrocyclones and hoses handling dry powder, where static electricity build-up may cause increased ozone levels, to fabricated or moulded components that are frequently exposed to sunlight.

No additional surface painting or shielding is necessary with Linapplus OZL, 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.

Linapplus OZL: Natural performance plus ozone resistance.

Product Description

A natural rubber vulcanisate formulated for excellent resistance to abrasion, UV light and ozone attack.

Recommended Applications

Suitable for use in a variety of industries where abrasion/corrosion resistance and good ozone/UV resistance are required. Resistant to most inorganic chemicals. Good vibration dampening and noise absorption properties and low temperature flexibility.

Size/Availability

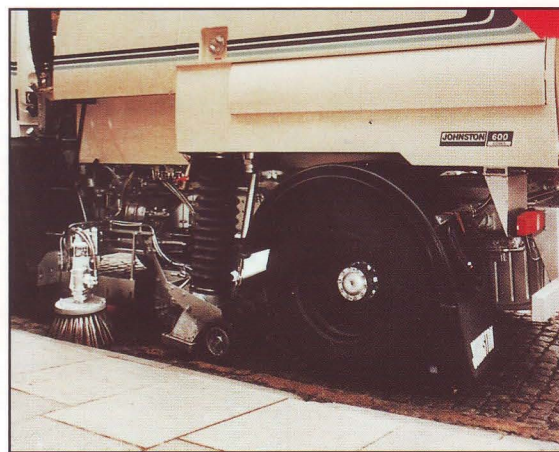
- Standard sheet size: 9.25 m x 1.23 m nominal.
- Part sheets available to order.
- Standard thickness range: 2.0 mm to 35.0 mm (approx. 1/16" to 1 3/8").
- Moulded components available from stock/to order.

Bonding Systems

One and two part bonding systems, depending on application method and required service, are available from Linatex. Please consult your local representative.

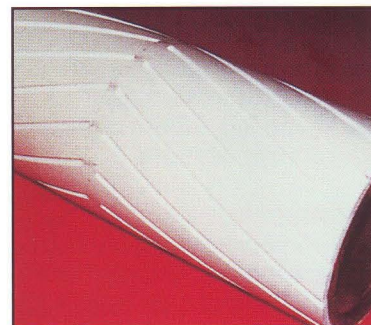
Storage

Recommended practice is to store in accordance with 'ISO 2230:- VULCANISED RUBBER' – Guide to Storage'.



Material Specification

Physical Property	Test Standard	Typical Value
Colour		Black OZL
Polymer Type		Natural Rubber
Hardness (±5)	ISO 48-1994	37 IRHD
Tensile Strength	ISO 37-1994	21.4 MPa (3103 psi)
Elongation at Break	ISO 37-1994	830%
Tension Set	ISO 2285 - 1981	10%
Tear Strength	ISO 34 - 1994 Method C	50 N/mm
Resilience	BS.903: Part A8	80%
Specific Gravity (±0.05)		0.96
Service Temperature Range		-40° C to + 75° C / (-40° F to + 167° F)



Linaplus FGL is a high quality natural rubber compound manufactured from FDA (Food & Drug Administration) approved ingredients. Linaplus FGL offers safe long-term food contact plus outstanding wear resistance.

Applications

Linaplus FGL is particularly suited to handling materials and foodstuffs in damp or aqueous conditions. Applications include chute, hose and pump linings for transfer of slurries, valve sleeves, pulley lagging, skirting rubber and general linings and moulded components in many areas of food processing, pharmaceutical and cosmetics manufacturing.

Physical and performance properties are similar to those proven with Linatex rubber.

- Food safe.
- Excellent resistance to wet abrasion.
- Tolerates a wide range of chemicals.
- Outstanding resilience.
- Low Permanent set.
- Non-Marking.
- Remarkable cut and tear resistance.
- Very good flexibility.

Quality Assurance

Linaplus FGL products are subjected to strict quality controls from raw materials selection through to material handling and packing. Our manufacturing facility for Linaplus FGL sheet products meets the requirements of ISO 9001 in line with the company's commitment to Total Quality Management.

The Flexible Option

To meet your needs, Linatex can provide a custom engineered solution based on world class experience in rubber applications, or supply standard sheet and products for the user to install. Linatex can also manufacture moulded components to customer design. Options are as flexible as the product itself.

Product Description

Linaplast FGL is a non-marking natural based vulcanisite, manufactured from FDA approved ingredients for long term food contact applications.

Recommended Applications

Recommended for a wide range of applications including chute and hose linings, general gasketing, counter tops, skirtings and general linings in areas of food processing, pharmaceutical and cosmetic manufacturing.

Size/Availability

- Standard sheet size: 9.25 m x 1.23 m nominal.
- Part sheets available to order.
- Standard thickness range: 2.0 mm to 35.0 mm (approx. 1/16" to 1 3/8").
- Moulded components available from stock/to order.

Bonding Systems

One and two part bonding systems, depending on application method and required service, are available from Linatex. Please consult your local representative.

Storage

Recommended practice is to store away from direct heat and sunlight in accordance with 'ISO 2230:- VULCANISED RUBBER'- Guide to Storage'.



Material Specification

Physical Property	Test Standard	Typical Value
Colour		White
Polymer Type		Natural Rubber
Hardness (±5)	ISO 48-1994	38 IRHD
Tensile Strength	ISO 37-1994	25.9 MPa (3760 psi)
Elongation at Break	ISO 37-1994	780%
Tension Set	ISO 2285 - 1981	7%
Tear Strength	ISO 34 - 1994	50 N/mm (300 lbf/in)
Resilience	BS.903:Part A8	80%
Specific Gravity (±0.05)		0.99
Service Temperature Range		-40° C to + 70° C / (-40° F to + 158° F)

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