TRELLEBORG

Rubber Screen Panels

Engineering knowledge and experience.

With over 100 years of polymer knowledge and application experience Trelleborg is a market leader in developing specialty rubber compounds for use in the most arduous applications.

Trelleborg chemists were challenged to produce a compound specifically for use in high impact vibrating screening. The result is our HA-L3 compound which has outstanding qualities and will significantly increase panel life in both high impact and high abrasion applications.

A Solution to Sticky Ore Processing

Trelleborg Rubber Screen Panels are ideal for bottom deck applications where blinding is a problem.

A high flexibility across the working surface of the panels can be achieved by taking advantage of properties of HA-L3 rubber compound which is a perfect solution when screening sticky ores.

Traditionally polyurethane had a better life cycle than rubber in sliding abrasion applications, however a trial in a bottom deck product screen application of an Iron Ore plant, the Trelleborg HA-L3 compound lasted the same as the polyurethane panels.

Trelleborg vs Competitors

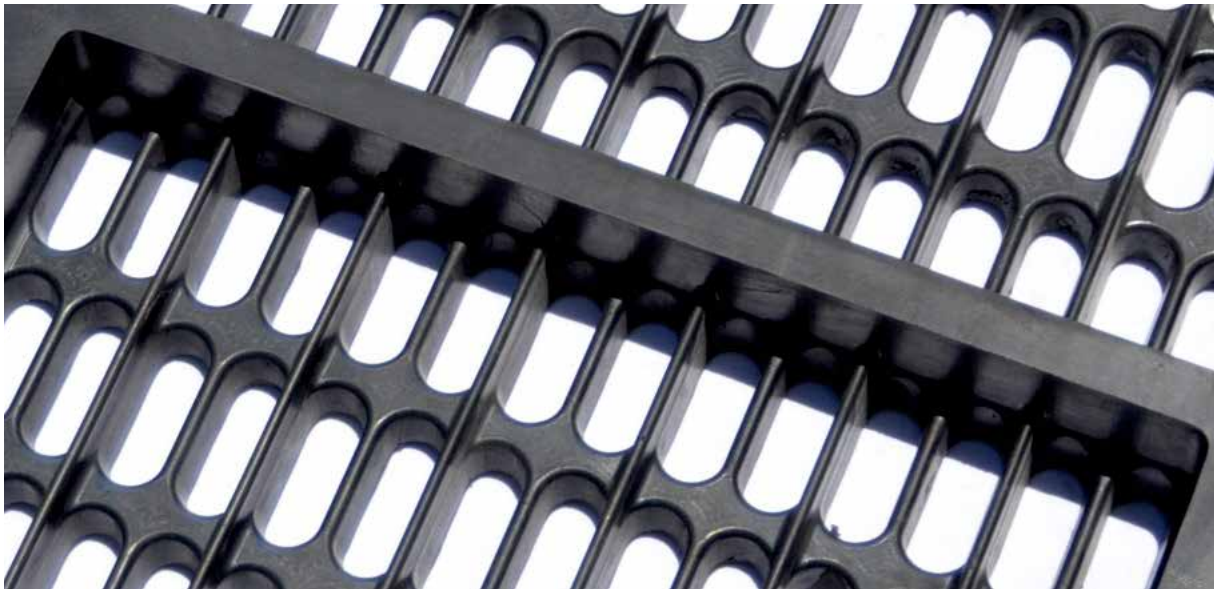
A picture of a Trelleborg HA-L3 compound panel (on right side) and a competitors panel (on left side) installed at the same time on the top deck of an Iron Ore product screen.

The superior life of Trelleborg's HA-L3 compound is quite evident and noticeable.

Design Benefits

The high/low aperture ligament configuration has two major benefits over traditional panel designs.

- The thinner ligament flexes more than the thicker ligament adding more life/movement across the panel's working surface to help alleviate buildup or blinding of the panels
- The thicker ligament adds support to the panels so they don't sag which reduces the wear rate on the trailing edge of the panels adding considerable life to the panels



Pressure Moulding vs Injection Moulding Panels

To prepare a compound for injection moulding requires a longer onset of curing time to allow the rubber to be injected and fill the cavity before the rubber starts curing. With injection moulding the curing can also be accelerated by the added heat generated by forcing the rubber through the injection ports.

To enable the material flow for injection moulding the rubber has to have its viscosity reduced by the addition of chemical peptisers, additional mastication of the polymer and/or the addition of extra processing aids.

This breaks the structure of the rubber into smaller pieces which reduces the final physical properties such as tensile strength, elongation, tear, resilience & abrasion resistance reduction.

Compression moulding uses a compound that spends a lesser amount of time being worked, without adding extra processing aids, which results in a more intact polymeric structure.

Under 20kg load, a 50mm deflection

A good case in point that pressure moulding is a superior technique, is that if the same abrasion properties could be realised by injection moulding, all rubber mill lining manufacturers would use this method of production, as it is much quicker and cheaper.

We are not aware of any manufactures that do this.

HA-L3 SPECIFICATIONS			
BASIC PROPERTIES	**UNITS**	**STANDARD**	**VALUE**
Specific Gravity	g/cm^3		1.15
Hardness	Shore A	ASTM D2240	60 (+/-5)^0
Elongation	%	ASTM D412	610
Temperature	^0C	ASTM D412	-40 - 85
Abrasion Loss	mm^3	DIN 53 516 (10N)	50

High Impact Screening

Trelleborg HA-L3 Rubber Screen panels are particularly well suited to high impact screening applications. Our modular screening panels can with stand the gruelling and relentless impact of large particles in the top stages of a banana screen.

Trelleborg panels are designed to allow the rubber to deflect, to avoid erosion (gouging).

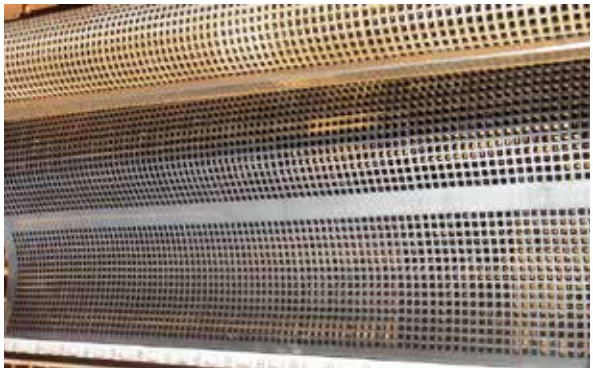
The wonderful elastic properties of rubber eliminate pegging in the lowers stages of the screening by allowing the aperture to flex and let near size particles pass.

In an Iron Ore shipping facility, the apertures in the lower stages of the screen were 90% pegged when polyurethane panels were installed, but when replaced with rubber panels in the same position, the pegging was less than 5% and panel life increased by 30%.

Rubber Cross Tension Mats

Trelleborg manufacture a complete range of cross tension rubber screening mats.

Thickness from 3mm to 35mm.



ROM/Primary Screening

For applications with extremely large particles, such as vibrating grizzly or scalping screens, Trelleborg design bolt in screen panel systems using centre hold down bars or countersunk fixing holes depending on customer preference.

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Trelleborg Engineered Products is part of the Trelleborg Offshore & Construction business area of the Trelleborg Group. Trelleborg Engineered Products is a leading global developer, manufacturer and provider of engineered polymer solutions to the energy, infrastructure and mining industries. Performing in some of the harshest environments on earth, its principal products are sealing systems for tunnels, a wide range of bearings, polymer solutions for floatover technology and wear resistant products for the mining industry. With local support, a track record of over 100 years and its everday ingenuity, customers can rely on Trelleborg Engineered Products to deliver innovative polymer solutions that significantly improve the quality, safety and efficiency of its customers' operations worldwide.

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linkedin.com/company/trelleborg

Trelleborg Engineered Products Australia Pty Ltd, Brisbane Head Office, 515 Zillmere Rd, Zillmere, Queensland, Australia 4034
Tel: +61 7 3866 7444 Fax: +61 7 3263 4912

Perth Office, 25 Glassford Rd, Kewdale, Western Australia, Australia 6105
Tel: +61 8 9256 6000 Fax: +61 8 9353 5990