

The background of the entire page is a photograph of a large industrial facility, likely a mining or mineral processing plant. It features a complex network of steel structures, walkways, and conveyor belts under a clear blue sky. The ground in the foreground is sandy and has some metal tracks or rails.

# Vibrating Screen Panels

**Mining and Mineral Processing**  
Vibrating Screen Panels  
[www.trelleborg.com/fluidhandling](http://www.trelleborg.com/fluidhandling)



# 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 1601 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 Vibrating 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 1601 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 1601 compound lasted the same as the polyurethane panels.

### 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.

### TRELLEBORG VS COMPETITORS

A picture of a Trelleborg 1601 compound panel (on right side) and a competitor's 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 1601 compound is quite evident and noticeable.



### 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.



Under 20kg load, a 50mm deflection





# HIGH IMPACT SCREENING

Trelleborg supply a range of forwarding and retaining spirals/baffles for use in AG/SAG, ball mills and scrubbers.

Trelleborg technical personnel are available for onsite consultations to work with you on the placement of spirals and aperture configurations to optimise the efficiency of the trommel.



# RUBBER CROSS TENSION MATS

Trelleborg manufacture a complete range of cross tension rubber screening mats. Thickness from 3mm to 35mm.

# ROM/PRIMARY SCREENING

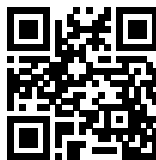
For applications with extremely large particles, such as vibrating grizzly or scalping screens, Trelleborg design bolt in screen panel systems using centre hold down bars or countersunk fixing holes depending on customer preference.



Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Its innovative solutions accelerate performance for customers in a sustainable way.

[WWW.TRELLEBORG.COM](http://WWW.TRELLEBORG.COM)

**Scan here to view more product information**



Head Office

Trelleborg Engineered Products Australia Pty. Ltd.  
127, Pilbara Street, Welshpool, Perth, WA 6106.

Tel +61 (0)8 9256 6000, Fax +61 (0)8 9353 5990, Email [toc.pth.sales@trelleborg.com](mailto:toc.pth.sales@trelleborg.com), [www.trelleborg.com/fluidhandling](http://www.trelleborg.com/fluidhandling)

Western Australia

Trelleborg Engineered Products Australia Pty. Ltd.  
25, Glassford Road, Kewdale, Perth, WA 6105.

Tel +61 (0)8 9256 6000, Fax +61 (0)8 9353 5990, Email [toc.pth.sales@trelleborg.com](mailto:toc.pth.sales@trelleborg.com), [www.trelleborg.com/fluidhandling](http://www.trelleborg.com/fluidhandling)

Queensland

Trelleborg Engineered Products Australia Pty. Ltd.  
17, Business Drive, Narangba, Brisbane, QLD 4504.

Tel +61 (0)7 3866 7444, Fax +61 (0)7 3263 4912, Email [toc.pth.sales@trelleborg.com](mailto:toc.pth.sales@trelleborg.com), [www.trelleborg.com/fluidhandling](http://www.trelleborg.com/fluidhandling)