

# PAPEROCK

## TECHNICAL DATA SHEET

### Description

Thermoset Engineered Panels (TEP) are a fully cured phenolic resin which provides a durable panel with long term surface and structural stability as well as excellent chemical and moisture resistant properties.

### Features

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#### Easy to clean

Because the phenolic resin is not electro-static the panels are not likely to attract dirt.

#### Chemically Inert

Cured resole Phenolic resin has excellent resistance to chemical attack.

#### Non Corrosive

Because of the inert nature of the phenolic resin and its resistance to moisture pick - up the TEP board will not contribute to the corrosion of metal fixings.

#### Resistant to Microbial Attack

The cured inert resin used does not support the growth of fungi, bacteria or microbes.

#### Resistant to Steam

Since the cured resin is tested during production to prove steam resistance, steam cleaning is a practical way of cleansing boards with a high dirt load.

#### Very Low Water Absorption

Standard test procedures during production show that water take - up is typically less than 1%.

#### Good Stiffness Characteristic for Panel Weight

Three point bend tests carried out using production QC procedures indicate that for similar mass, the Phenolic TEP board is stiffer than plywood of similar thickness.

#### High Impact Resistance

Tests carried out at the CSIRO with Australian Panel Products Phenolic TEP board show minimal indentation when impacted by an ice ball shot out of an air canon at approximately 170 kmph.

#### Good Abrasion Resistance

The test result using standard abrasion testing procedures and equipment translates into a panel having excellent wearing properties regardless of the finish specified.

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### Excellent Workability

The nature of phenolic resin based TEP boards permits normal fabrication techniques. There is no need for special tooling; in fact high speed steel tools can be used however for long life tooling Tungsten Carbide Tipped tools are suggested. The panels can be sawn, drilled, routed and glued using appropriate adhesives.

### Good Temperature Stability

Because phenolic resin is a thermosetting resin, the panel is temperature stable up to a temperature of 150°C.

### Good Dimensional Stability

Since the cured phenolic resin has a very low moisture take - up, and is temperature stable to relatively high levels the panels exhibit a high degree of stability.

### Technical

Characteristic	Test Method	Value/Result
Stiffness	Three point bend test	Typical Plate Stiffness "D" characteristic:- 3mm thick = $23.7 \times 10^3$ Nmm <sup>2</sup> /mm width. 5mm thick = $130.3 \times 10^3$ Nmm <sup>2</sup> /mm width. 10mm thick = $865.2 \times 10^3$ Nmm <sup>2</sup> /mm width.
Wear Resistance	Taber H 174, 1 H18 calibrade.	50% Surface pattern removed = 50 cycles. Pattern and colour removed = 375 cycles.
Impact Resistance	CSIRO Ice Canon Test	38mm Dia ice ball @ 47m/sec Generally indents less than 1mm
Moisture Resistance	AS 1795.1 - 1983	< 1%
Steam Resistance	AS 2098.2 - 1977	10 hours Steam @ 200kPa No Delamination

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