



# RUBBER CALENDERED SHEET

## DESCRIPTION

DUNLOP 1499 Uncured Natural Rubber – (NR) – Calendered Sheet

## APPLICATION

Exhaust Steam Cure – Medium hardness Natural Rubber tank lining sheet. For moderate chemical and impinging abrasion resistance (200mm<sup>3</sup> Loss AS1683 method 21) lining applications.

## STANDARD PRODUCTS

13.1m x 1200mm roll packed into standard box for transport and storage. Thickness range is 1mm to 15mm.

## TYPICAL PROPERTIES (Based on 3mm sheet press cured 40 mins @ 140°C)

<b>Tensile Strength</b>	(ASTM D412 method A)	MPa	20.0
<b>Elongation @ Break</b>	(ASTM D412 method A)	%	550
<b>Hardness</b>	(ASTM D2240 Scale "A")	(A/1)	58 +/-5
<b>S.G.</b>			1.12
<b>Shelf Life</b>	@ or below 7°C	Months	3

## TYPICAL CHEMICAL RESISTANCE – 1499 sheet (cured) – up to 70°C Working Conditions

<b>Alkalis</b>	<b>G</b>	<b>Hydrocarbons Oils – Paraffinic (aniline pt&gt;95°C)</b>	<b>U</b>
<b>Acids – Non-oxidising</b> (eg HCL, HCN)	<b>G</b>	Mineral Oils – Naphthenic (aniline pt60-95°C)	<b>U</b>
<b>Acids – Oxidising</b>		<b>Synthetics – Aromatic (aniline pt&lt;60°C)</b>	<b>U</b>
- Sulphuric to 35%	<b>G</b>	<b>Hydrocarbon Solvents</b> >30% aromatics	<b>U</b>
- Nitric	<b>U</b>	5 to 30% aromatics	<b>U</b>
- Others	<b>V</b>	0 to 5% aromatics	<b>U</b>
<b>Inorganic salts</b> - neutral or alkaline	<b>G</b>	<b>Chlorinated Solvents</b>	<b>U</b>
- acidic, refer to parent acid	<b>V</b>	<b>Alcohols</b>	<b>G</b>
<b>Chlorine water</b>	<b>U</b>	<b>Ketones</b>	<b>V</b>
<b>Oxidants</b>	<b>V</b>		
Grading: E=Excellent                      G=Good                      P=Poor                      U=Unsuitable V=Variable. Depends on material and concentration and so check with Fenner Dunlop			

<p><b>SUGGESTED BONDING SYSTEM</b></p> <p>Regardless of whether this, or some other system is used, it is the responsibility of the customer to ensure that the chosen calendared sheet and chosen bonding system and procedures is capable of meeting the expected service requirements before committing to production.</p>	<p>Throughout this process surfaces, materials and environment must be maintained at 15 to 30° degrees C and less than 75% Relative Humidity. <b>Avoid dew point throughout all preparation.</b></p> <p><b><u>Metal Preparation.</u></b></p> <ol style="list-style-type: none"> <li>1.1 Grit blast to AS1627.4 Class 2.5, following full de-grease and removal of flake or other contaminants.</li> <li>1.2 One coat Chemlock 205 (or Chemlock 289) immediately to dry clean surface.</li> <li>1.3 One coat Chemlock 220 (or Chemlock 290)</li> <li>1.4 One coats 1612 solution.</li> </ol> <p><b><u>Rubber Preparation.</u></b></p> <ol style="list-style-type: none"> <li>2.1 One or more coat(s) 1612 Solution to absolutely clean, moisture free surface.</li> </ol> <p><b>Solvent:</b> Toluene</p>
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<p><b>CURING METHOD</b></p> <p>(Allow additional time for substrate).</p>	<p>Exhaust Steam Cure.</p> <ol style="list-style-type: none"> <li>1. 2 Hour rise to 90-100°C, then Hold at maximum temperature until cured. Cure time will be dependent on individual circumstances.</li> </ol> <p>NOTE: Firmly maintain enclosure. Ensure complete circulation of steam Avoid dead spots Drain ALL condensation.</p>
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<p><b>PRECAUTIONS</b></p> <p>(refer also to solution safety data sheets)</p>	<ol style="list-style-type: none"> <li>1. Avoid cementing in high humidity conditions to prevent moisture condensation.</li> <li>2. All solutions are flammable – maintain safety precautions. –</li> <li>3. Ensure adequate ventilation in confined areas.</li> </ol>
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<p><b>COMMENTS</b></p>	<ol style="list-style-type: none"> <li>1. All work should be carried out to BS6374 Part 5:1985</li> <li>2. For specific chemical resistance contact Fenner Dunlop.</li> </ol>
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