Overview
High performance, reduced cost. PALRAM’s new PALRUF 5105 sheet is a roofing solution designed to offer unmatched strength with significant economic benefits for large scale construction projects. Thanks to optimized corrugation the sheet can carry high loads at purlin spans of over 1.5 meters. This brings a direct economic advantage, saving on purlins, screws and fastening accessories.

PALRUF corrugated PVC sheet is an all-round durable roofing solution, combining excellent resistance to chemicals, corrosion and impact. PALRUF endures harsh chemical environments where other roofing materials will quickly corrode, making it ideal for roofing, siding and cladding applications in industry, agriculture and construction.

Main Benefits
- Excellent chemical resistance
- Weather and UV resistant
- High fire resistance
- Will not rust or corrode
- High impact - Resists breakage
- Easily handled, quickly installed
- Requires minimum maintenance

Typical Applications
Construction
Coastal construction, public buildings, parks, sports and recreation facilities.

Industry
Chemical and pharmaceutical plants, ports, pulp and paper plants, power stations, mines, metal processing facilities.

Agriculture
Greenhouses, cow sheds, henhouses, pigpens, barns and machinery sheds.

Cost effective features
- 15%-20% lighter than alternative solutions thanks to its efficient design.
- 30%-40% reduce of overlap area compared to other industrial metal or thermoplastic panels.
- 20%-30% additional span between purlins while maintaining the same structural strength. Significant saving construction materials costs.
- Up to 50% savings on screws and washers comparing to other metal or PVC industrial panels.
- 30%-40% faster installation. Less screws and accessories means more efficient work.

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PALRAM® 5105

Profile Drawing

Weather and UV Resistance

PALRUF maintains its physical properties and attractive appearance despite exposure to all types of climatic conditions. These include harmful UV radiation, humidity, rain and snow. PALRUF also provides weather protection over a large temperature range, from -20°C to 50°C. PALRUF should not be used in the vicinity of chimneys where soot may fall on the sheets.

Added Value

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Method*</th>
<th>Conditions</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>D-792</td>
<td>g/cm³</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Heat deflection temperature (H.D.T)</td>
<td>D-648</td>
<td>Load: 1.82 MP</td>
<td>°C</td>
<td>61 - 67</td>
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<tr>
<td>Service Temperature Range</td>
<td>C-177</td>
<td>°C</td>
<td>-20 to +50</td>
<td></td>
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<tr>
<td>Thermal conductivity</td>
<td>C-177</td>
<td>W/m K</td>
<td>0.16</td>
<td></td>
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<tr>
<td>Coefficient of linear thermal expansion</td>
<td>D-696</td>
<td>cm²/°C, 6.3 x 10⁴</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact strength</td>
<td>ISO 6603/1</td>
<td>2 mm sheet</td>
<td>J</td>
<td>45 - 60</td>
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<tr>
<td>Tensile strength at yield</td>
<td>D-638</td>
<td>10 mm/min</td>
<td>MPa</td>
<td>50 - 66</td>
</tr>
<tr>
<td>Tensile strength at break</td>
<td>D-638</td>
<td>10 mm/min</td>
<td>MPa</td>
<td>39 - 53</td>
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<tr>
<td>Elongation at yield</td>
<td>D-638</td>
<td>%</td>
<td>3</td>
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</tr>
<tr>
<td>Elongation at break</td>
<td>D-638</td>
<td>%</td>
<td>&gt;80</td>
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<tr>
<td>Tensile modulus of elasticity</td>
<td>D-638</td>
<td>1 mm/min</td>
<td>MPa</td>
<td>2,900</td>
</tr>
<tr>
<td>Flexural strength</td>
<td>D-790</td>
<td>1.3 mm/min</td>
<td>MPa</td>
<td>90 - 100</td>
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<tr>
<td>Flexural modulus</td>
<td>D-790</td>
<td>1.3 mm/min</td>
<td>MPa</td>
<td>2,700</td>
</tr>
<tr>
<td>Rockwell hardness</td>
<td>D-785</td>
<td>R Scale</td>
<td>105 - 115</td>
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</tr>
</tbody>
</table>

* ASTM method except where noted otherwise.

Flammability

PALRUF is self-extinguishing and complies with the most demanding international fire resistance standards in the field of plastics, as indicated in the detailed table herein. The classification is subject to product type, thickness and color.

Method | Classification*
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DIN 4102 | B-1
BS 476/7 | Class 1
NSP 92501, 5 | M-1
FMRC 4870 | Class 1

* For more detailed information please contact your Palram distributor.

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