

# ArpoTuff

Fibre Reinforced Opaque Panels



Arvind. We are one.  
Yet, we are many.

**ARVIND** **POLSER**

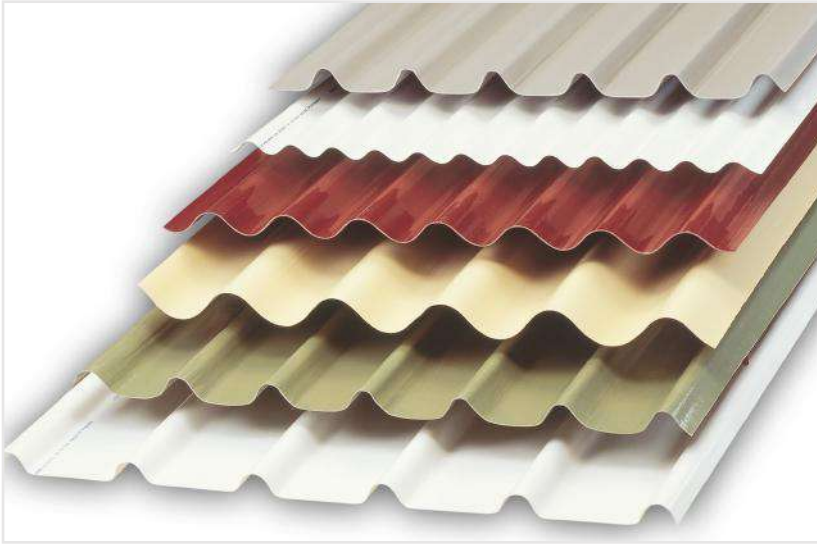
Arvind Ltd from India and Polser A.S from Turkey have come together to start a Joint Venture to produce world-class Translucent, Opaque, Flat, Embossed and Speciality FRP sheets in India. The JV formed in 2018 will target the growing Indian and global demand for FRP sheets market with focus on Pre Engineered Buildings, Cooling Tower, Pharma, Transport, Cold Storage and Food & Beverages industry.

Founded in 1931, the \$2 Bn Arvind is one of India's largest integrated textile-to-retail conglomerates with successful forays in Textiles, Garments, Branded Apparel, Advanced Materials, Environmental Solutions, and Real Estate. Arvind's Composites Division produces a range of FRP products suitable for vast applications serving global customers with high standards of quality and delivery. Arvind's technologies include Pultrusion, Hand Lamination, Filament Winding, Gratings, and others.

Polser A.S was founded in 1980. It has been one of the leading entities in the production, marketing and exporting of FRP sheets. With two decades of experience, Polser A.S has established itself as a strong player in the domestic and international market due to quality products.



## Arvind Polser FRP Panels are modern Building and Infrastructure products.



Arvind Polser ArpoTuff panels acts as a suitable alternative where classical metal, fibre cement and asbestos based products are not ideal fit for the requirement. ArpoTuff sheets are made from high quality polyester resins and glass fibre reinforcements contributing significantly to the construction industry as well as non-structural elements.

ArpoTuff FRP sheet range denotes the opaque FRP roofing and cladding sheets that are produced in the modern continuous lamination lines in required Plain, Trapezoidal or Corrugated Profiles

ArpoTuff sheets ensures you an optimum coating adherence guarantee and long life along with high architectural appeal satisfying the type of design requirement. Low Thermal conductivity, Resistance to corrosion, Negligible maintenance are few of the many advantages that ArpoTuff offers.





## Product Features

- ArpoTuff has a low thermal conductivity which results into maintaining ambient temperature inside the building compared to metal sandwich panels.
- ArpoTuff sheets offer resistance to general corrosion of chemicals and sea water, thus having a better service life.
- ArpoTuff sheets can also be produced with fire retardant resins and can be protected by fire retardant gelcoat on top surfaces.
- For new roofing projects ArpoTuff sheets save from the cost of construction since they do not require a heavy structure to carry out their weight.
- With application of Gel Coat and protective film on the sheets surface results into increasing its durability against environmental degrading, UV exposure, and corrosive chemicals.
- ArpoTuff has an excellent resistance to general corrosion for surface contacts with strong chemicals, thus remaining virtually unaffected in many chemical environments.
- ArpoTuff sheets are strong and resilient. They don't rust, rot, scale, mildew and dent thus having a long service life.



## Common Application:

- ArpoTuff panels are used in industrial buildings which have high exposure to corrosive fumes like salt factories, fertilizer factories, paper mills, chemical plants, petrochemical plants.
- ArpoTuff sheets are extensively used as Cladding Sheets in Cooling Tower.
- ArpoTuff sheets can be used as Roof Sheet and Cladding Sheet in Pre Engineered Buildings.
- ArpoTuff sheets are also used as Partition sheets in Cooling Tower.
- ArpoTuff sheets are also used in Warehouses and other industrial buildings.
- ArpoTuff sheets can also be used in renovation of old metal or asbestos roofing.
- For roofing in Agricultural and animal breeding facilities, etc.
- In Green House structure
- In Parking and Car Washing Facilities
- Home Improvement projects like Patio Covers, Decorative partitions, Fencing, etc.





## Optional Product Specifications

### **ARPOTUFF ST:**

ArpoTuff ST sheets are produced with UV resistant Polyester resin.

### **ARPOTUFF M:**

ArpoTuff M sheets are produced with UV resistant Polyester resin. The top surface is coated with Melinex 301 polyester film.

### **ARPOTUFF MX:**

ArpoTuff MX sheets are produced with UV resistant Polyester resin. The top surface is coated with Melinex 389 polyester film.

### **ARPOTUFF ACOR:**

ArpoTuff ACOR sheets are produced with UV resistant polyester resin. The Top surface is coated with UV resistant gelcoat. is coated with UV resistant ISO NPG gelcoat.

### **ARPOTUFF ACON:**

ArpoTuff sheets are produced with UV resistant polyester resins. The top surface is protected by Polyester film. The Bottom surface is coated with special type of felt which can absorb the condensation that might develop under the sheet.

### **ARPOTUFF JUV:**

ArpoTuff JUV sheets are produced with UV resistant acrylic modified polyester resin. The top surface is coated with UV resistant gelcoat.

### **ARPOTUFF JUV PLUS:**

ArpoTuff JUV sheets are produced with UV resistant acrylic modified polyester resin. The top and button surface is coated with UV resistant gelcoat.

### **ARPOTUFF FR:**

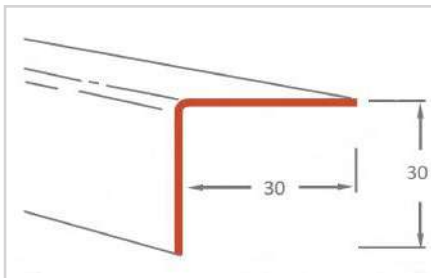
ArpoTuff FR are produced with Fire Retardant Resin.

## Technical Specifications:

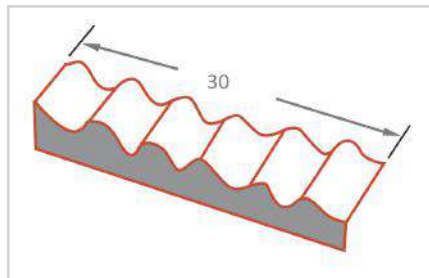
| Surface (top/bottom) :            | Standard, protective film, gelcoat, Standart, protective film, U.V resistant film, U.V resistant gelcoat. |
|-----------------------------------|---|
| Standard thickness :              | 1.50 - 1.80 - 2.00 mm (up to 3.00 mm)   |
| Standard length :                 | According to the requirement.<br>(Also based on transportation limits )                                   |
| Specific weight :                 | 1.50 - 1.65 gr/cm <sup>3</sup>  |
| Service temperature :             | Between -40°C, +120°C   |
| Modulus of Elasticity :           | ≥ 4500 Mpa (ISO 14125)  |
| Tensile strength :                | ≥ 50 Mpa (ASTM D 638)   |
| Bending Strength                  | ≥ 100 Mpa (ISO 14125)   |
| Thermal linear expansion coeff. : | 2.7 x 10 <sup>-2</sup> °C <sup>-1</sup>   |
| Water absorption :                | %0.2  |
| Barcol hardness :                 | >40 Barcol  |
| Self ignition temperature :       | 487°C   |
| Heat transmission coeff. :        | ~5 w/m <sup>2</sup> °K  |
| Self Ignition Temperature         | 487 °C  |

## Accessories

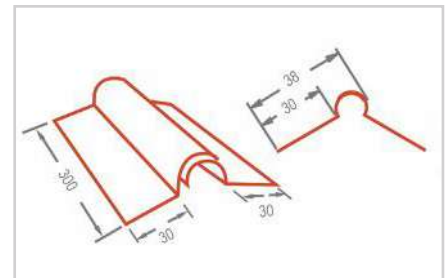
A wide range of accessories specifically designed for ArpoTuff sheets like ridge capping, corner piece and gutters are available to choose from.



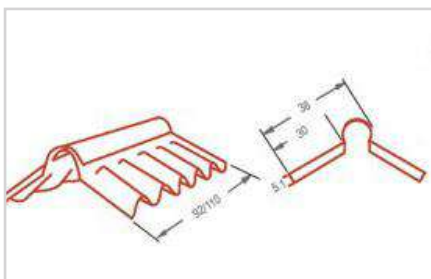
**Corner Piece**



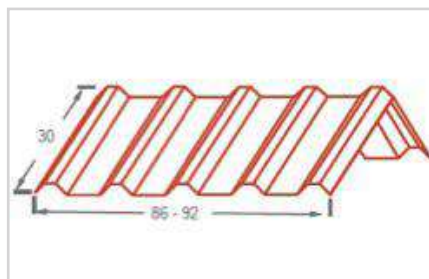
**Flat / Corrugated Closure piece**



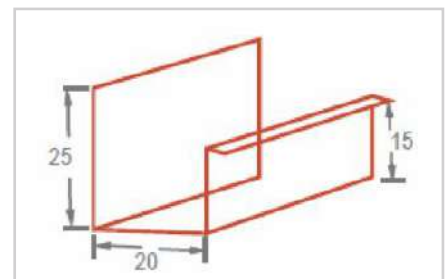
**Flat Ridge capping**



**Corrugated Ridge capping**



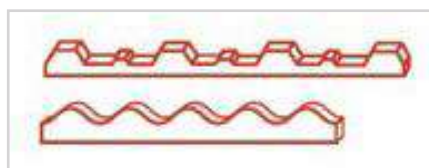
**Trapezoidal Ridge Capping**



**Gutter**



**Self Drilling Screw**



**EPDM Foam Filler**





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