

# MULTICLEAR® STRONG 6Wall

MULTICLEAR® STRONG 6Wall is a unique range of extruded multiwall polycarbonate sheets specifically designed to be low U-value product with increased stiffness, allowing cost saving and providing increased light transmittance due to less glazing bars required for installation

MULTICLEAR® STRONG 6Wall is a transparent or translucent sheet with one or two sides UV protection. Standard production available in thickness 8, 10 and 16 mm, in clear, opal and bronze color.

Dust free knife cutting is used in all formatting operations.

MULTICLEAR® STRONG 6Wall has a 10 years limited warranty against discoloration, loss of impact strength and light transmission due to weathering.

#### ALSO AVAILABLE:

MULTICLEAR® SOLAR CONTROL MULTICLEAR® HAMMER FINISH

EXCELLENT FIRE PERFORMANCE complying requirements to EN 13501-1 (EUROPEAN BUILDING STD). In case of fire, the sheet will melt and allow venting where heat and smoke will be let out and therefore reduce the growth of fire by flame spread.

### **MULTICLEAR® STRONG 6Wall BENEFITS:**

- · High light transmission
- · Outstanding bending radius
- · Cross structure offering increased stiffness
- · Excellent thermal insulation

#### **APPLICATION AREAS:**

**Building industry** – roofing, cladding, sidewalls, conservatories, domes, skylights, sheds, carports, smoke vents, swimming pool covers, suspended ceilings, glasshouses, shopping centre roofing, railway/metro station, stadia roofing and partitions,

**Agriculture** – greenhouses, lorry /tractor ports and farm/barn buildings.

**Packaging** – boxes for lamp optics, neon signs, pallet shields and protective covers for fragile items.

Advertising - illuminated signs and panels.

## **MULTICLEAR® STRONG 6Wall TECHNICAL SPECIFICATIONS**

| Multiclear®<br>STRONG 6Wall | Thickness<br>[mm] | Rib<br>Distance<br>[mm] | Weight<br>[g/m²]     | U-Value<br>[W/m² K] | Width [mm] |          |          |          | UV side              | Standard Colours |          |          |
|-----------------------------|-------------------|-------------------------|----------------------|---------------------|------------|----------|----------|----------|----------------------|------------------|----------|----------|
|                             |                   |                         |                      |                     | 2100       | 1250     | 1200     | 980      |                      | Clear            | Opal     | Bronze   |
| 10mm                        | 8                 | 10                      | 1400<br>1500         | 2,5                 | <b>√</b>   | <b>V</b> | <b>V</b> | <b>V</b> | 1(2)<br>1(2)         | V                | <b>√</b> | <b>V</b> |
|                             | 10                | 10                      | 1500<br>1700         | 2,2                 | <b>V</b>   | V        | <b>V</b> | <b>V</b> | 1(2)<br>1(2)         | V                | <b>V</b> | <b>V</b> |
|                             | 16                | 10                      | 2500<br>2600<br>2700 | 1,9                 | V          | V        | <b>V</b> | <b>V</b> | 1(2)<br>1(2)<br>1(2) | V                | V        | V        |

| Property   | Value   | Unit                               | Standard   |  |
|--|---------|------------------------------------|------------|--|
| Physical properties                                |         |                                    |            |  |
| Density  | 1,2     | g/cm <sup>3</sup>                  | ISO 1183   |  |
| Refractive index (20 °C)                           | 1,586   |                                    | ISO 489    |  |
| Moisture absorption 24 hours, 23 °C, 50% RH        | 0,15    | %                                  |            |  |
| Mechanical properties                              |         |                                    |            |  |
| Tensile strength at yield (at break)               | 63 (70) | N/mm²                              | ISO 527    |  |
| Elongation at yield (at break)                     | 6 (110) | %                                  | ISO 527    |  |
| Elastic modulus                                    | 2300    | N/mm²                              | ISO 527    |  |
| Flexural modulus                                   | 2300    | N/mm²                              | ISO 178    |  |
| Charpy unnotched impact strength +23 °C            | NB      | kJ/m²                              | ISO 179/2D |  |
| Charpy unnotched impact strength -40 °C            | NB      | kJ/m²                              | ISO 179/2D |  |
| Izod notched impact strength +23 °C                | 65      | kJ/m²                              | ISO 180/1A |  |
| Izod notched impact strength -30 °C                | 10      | kJ/m²                              | ISO 180/1A |  |
| Rockwell hardness                                  | M70     |                                    | ISO 2039-2 |  |
| Thermal properties                                 |         |                                    |            |  |
| Linear coefficient of thermal expansion (23-80 °C) | 0,7     | 10 <sup>-4</sup> x K <sup>-1</sup> |            |  |
| Heat deflection temperature, HDT A (1,80 N/mm²)    | 132     | °C                                 | ISO 75     |  |
| Heat deflection temperature, HDT B (0,45 N/mm²)    | 142     | °C                                 | ISO 75     |  |
| Vicat temperature VST/B 120                        | 149     | °C                                 | ISO 306    |  |
| Vicat temperature VST/B 50                         | 148     | °C                                 | ISO 306    |  |
| Specific heat capacity, Cp                         | 1,17    | kJ/kg.K                            |            |  |
| Thermal conductivity                               | 0,21    | W/m.K                              | DIN 52612  |  |

Properties reported here are typical values. Arla Plast makes no representation that the material in any particular shipment will conform exactly to the values given. The above information is based upon experience and given in good faith. Due to many factors which are outside our knowledge and control, no warranty is given or is to be implied with respect to such information. Detailed product specification and technical manual/information is available on request.

