

### **ASLAN™ 400**

# CARBON FIBER REINFORCED POLYMER (CFRP) LAMINATES FOR **STRUCTURAL STRENGTHENING**

#### **PHYSICAL & MECHANICAL PROPERTIES**

| Size Designation |          |              |              | Nominal Area |        | f* <sub>fu</sub> Garanteed Tensile<br>Strength |     | Ultimate Tensile<br>Load |       | E, Tensile Modulus of<br>Elasticity |                     | Ultimate<br>Strain |
|------------------|----------|--------------|--------------|--------------|--------|--|-----|--------------------------|-------|-------------------------------------|---------------------|--------------------|
| Width in         | Width mm | Thickness in | Thickness mm | mm²          | in²    | MPa  | ksi | kN                       | kips  | GPa                                 | psi 10 <sup>6</sup> | %                  |
| 2                | 50       | 0.055        | 1.4          | 70           | 0.1102 | 2400   | 350 | 168                      | 38.57 | 131                                 | 19                  | 1.87%              |
| 4                | 100      | 0.055        | 1.4          | 140          | 0.2204 | 2400   | 350 | 336                      | 77.14 | 131                                 | 19                  | 1.87%              |

We reserve the right to make improvements in the product and/or process which may result in benefits or changes to some physical-mechanical characteristics. The data contained herein is considered representative of current production and is believed to be reliable and to represent the best available characterization of the product as of July 2011. Tensile tests per ASTM D3039.

#### **DESIGN TENSILE & MODULUS PROPERTIES per ASTM D3039**

The area used in calculating the tensile strength is the nominal cross sectional area. The "Guaranteed Tensile Strength",  $f_{fu}^*$  is as defined by ACI 440.1R as the mean tensile strength of a given production lot, minus three times the standard deviation or  $f_{fu}^* = f_{u,ave}^* - 3\sigma$ . The "Design or Guaranteed Modulus of Elasticity is as defined by ACI 440.1R as the mean modulus of a production lot or  $E_f = E_{fave}^*$ .

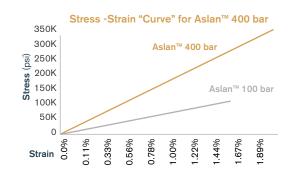
## TRANSITION TEMPERATURE OF RESIN $T_g > 230^{\circ}F$ (110°C) per DSC method

#### **MATERIAL CERTS**

Material test certs are available for any production lot of Aslan™ 400 Laminate.

#### **DENSITY**

| Size Desi | ignation | Unit Weight/length |        |  |  |  |
|-----------|----------|--------------------|--------|--|--|--|
| Size      | mm       | kg/m               | lbs/ft |  |  |  |
| 2"        | 50       | 0.1637             | 0.11   |  |  |  |
| 4"        | 100      | 0.2976             | 0.20   |  |  |  |



ASLAN™ 400 SOLUTION "SYSTEM" ~ Approved Adhesives. The following high strength structural adhesives are recommended for use.

- > Pilgrim EM 5-2 Gel
- > DeNeef Enforce CFL Gel
- > SikaDur 30

#### **AMERICAS**

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