

Aslan 500 Carbon Fiber Reinforced Polymer (CFRP) Tape Product Data Sheet

Physical / Mechanical Properties – Tensile, Modulus & Strain

| Size Designation | | Nominal Area | | f* _{fu} - Guaranteed Tensile Strength | | Ultimate Tensile Load | | E _f - Tensile Modulus of Elasticity | | Ultimate Strain | |
|------------------|----|--------------------------------|-----------------|--|------|-----------------------|-------|--|-----|---------------------|-------|
| Size | mm | Dimension | mm ² | in ² | MPa | ksi | kN | kips | GPa | psi 10 ⁶ | % |
| 2 | 6 | 0.079" X 0.63" 2mm X 16mm | 31.67 | 0.049 | 2241 | 325 | 70.8 | 15.92 | 124 | 18 | 1.81% |
| 3 | 10 | 0.177" X 0.63" 4.5mm X 16mm | 71.26 | 0.110 | 2172 | 315 | 154.1 | 34.65 | 124 | 18 | 1.75% |

Hughes Brothers reserves 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.

#2 (6mm) equivalent area Tape is available in coils in continuous lengths up to 250ft (76.2m).

#3 (10mm) equivalent area Tape is available in coils in continuous lengths up to 100ft (30.48m).

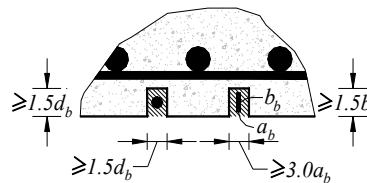
Design Tensile & Modulus Properties per ASTM D3039. The area used in calculating the tensile strength is the nominal cross sectional area. The "Guaranteed Tensile Strength", f_{fu}^* is as defined by ACI 440.1R as the mean tensile strength of a given production lot, minus three times the standard deviation 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 $E_f = E_{f,ave}$.

Material Certs & Traceability Available for any production lot of Aslan 200 bar traceable by stock order and production date.

Density

| Size Designation | | Unit Weight / length | |
|------------------|----|----------------------|----------|
| Size | mm | kg / m | lbs / ft |
| 2 | 6 | 0.0521 | 0.035 |
| 3 | 10 | 0.1116 | 0.075 |

NSM Groove Dimensions $\geq 1.5 b_b$ for depth
 $\geq 3.0 a_b$ for width



Aslan 500 NSM "System" ~ Approved Adhesives

The following high strength structural adhesives are recommended for use.

- Hilti RE 500
- Pilgrim Magmaflow CF
- BASF Concrevis 1420 & Concrevis LPL
- DeNeef Enforce CFL Gel
- Unitex Pro-poxy 400

Transition Temperature of Resin - T_g $> 230^\circ F (110^\circ C)$ per DSC method

Aslan 500
CFRP Tape