



# ASLAN™ 600 FIBERGLASS DOWEL BARS

**FOR LOAD TRANSFER IN CONCRETE SLABS**

**GLASS FIBER REINFORCED POLYMER (GFRP) DOWELS**

## Physical and Mechanical Properties

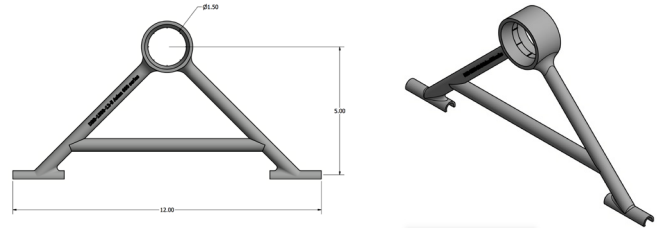
DOWEL DIAMETER		NOMINAL AREA		UNIT WEIGHT/ LENGTH		LONGITUDINAL SHEAR STRENGTH PER ASTM D4475 SHORT BEAM SHEAR		TRANSVERSE SHEAR STRENGTH PER ASTM D7617 DOUBLE SHEAR		TRANSVERSE SHEAR STRENGTH	
mm	in	mm <sup>2</sup>	in <sup>2</sup>	kg/m	lbs/ft	MPa	psi	MPa	psi	kN	lbs
16	5/8	198	0.307	0.447	0.30	42.1	6,100	151.7	22,000	30.0	6,754
19	3/4	285	0.442	0.566	0.38	46.9	6,800	151.7	22,000	43.3	9,724
25	1	507	0.785	0.967	0.65	58.6	8,500	151.7	22,000	76.8	17,270
32	1 1/4	792	1.227	1,563	1.05	58.6	8,500	151.7	22,000	120.1	26,994
38	1 1/2	1160	1.800	2,456	1.65	60.0	8,700	151.7	22,000	176.1	39,600

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. Transverse shear test is per ASTM D7617 which has superseded the ACI 440.3R method B.4.

<b>MATERIAL PROPERTIES</b> per ASTM D7205-06	The "Shear Strength", typically the "Transverse" or "Double Shear" strength of the Aslan™ 600 product is determined using the ASTM D7617 method. "Longitudinal Shear" or "Short Beam Shear" subjects the bar to a three point loading fixture and measures the shear strength along the axis of the bar. This testing is performed per ASTM D4475.
<b>GLASS FIBER CONTENT</b>	> 70% by weight per ASTM D2584
<b>MOISTURE ABSORPTION</b>	24 hour absorption at 122°F (50°C) ≤ 0.25%, per ASTM D570
<b>SEALING OF ENDS</b>	Not necessary
<b>GREASING OF FRP DOWELS</b>	Not necessary
<b>TRANSITION TEMPERATURE OF RESIN T<sub>g</sub></b>	> 230°F (110°C) per DSC method
<b>APPLICATIONS</b>	<ul style="list-style-type: none"> <li>• High speed tollways</li> <li>• Jointed concrete paving</li> </ul>

## ASLAN™ 600 Dowel Baskets

HB PART NUMBER	CONCRETE THICKNESS		DOWEL HEIGHT		DOWEL SPACING	
	mm	in	mm	in	cm	in
DBB1500-12-5	254	10	127	5	305	12
DBB1500-10-6	305	12	152	6	254	10



### Handling and Placement

Field cutting of Aslan™ 600 Dowels is generally not necessary. However, if required use a fine blade saw, grinder, carborundum or diamond blade. We use a diamond blade in wet bath for cutting the dowels. Sealing of Aslan™ 600 Dowel ends is NOT necessary. Greasing of Aslan™ 600 Dowels is NOT necessary (the bond strength to concrete is sufficiently low.)

### When installing Dowels in the DBB1500-10-6 basket:

The following high strength structural adhesives are recommended for use.

- Press fit the Dowel into the opening.
- Tap the dowel into the basket from the end to secure the dowel into place.
- Attach the Dowels and baskets to the runners as required.



**Owens Corning Infrastructure Solutions LLC**  
 One Owens Corning Parkway  
 Toledo, Ohio, USA 43659  
 Ph: 402-646-6262

[www.owenscorning.com/rebar](http://www.owenscorning.com/rebar)

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