

**Mechanical Properties**

<u>Property</u>	<u>Test Method</u>	<u>Test Result</u>	<u>Specified Limit CSA S807-10</u>																																			
Tensile Strength(MPa)	ASTM D7205	<table border="1"> <thead> <tr> <th>#</th> <th>Size</th> <th>Load</th> <th>MPa</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>10</td> <td>72KN</td> <td>1000</td> </tr> <tr> <td>5</td> <td>15</td> <td>210KN</td> <td>1000</td> </tr> <tr> <td>6</td> <td>20</td> <td>299KN</td> <td>1000</td> </tr> <tr> <td>8</td> <td>25</td> <td>499KN</td> <td>978</td> </tr> </tbody> </table>	#	Size	Load	MPa	3	10	72KN	1000	5	15	210KN	1000	6	20	299KN	1000	8	25	499KN	978	<table border="1"> <thead> <tr> <th>#</th> <th>Size</th> <th>MPa</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>10</td> <td>750</td> </tr> <tr> <td>5</td> <td>15</td> <td>650</td> </tr> <tr> <td>6</td> <td>20</td> <td>600</td> </tr> <tr> <td>8</td> <td>25</td> <td>550</td> </tr> </tbody> </table>	#	Size	MPa	3	10	750	5	15	650	6	20	600	8	25	550
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Ultimate Strain %	ASTM D7205	1.55%	>1.2																																			

**Bond Property**

<u>Property</u>	<u>Test Method</u>	<u>Test Result</u>	<u>Specified Limit CSA S807-10</u>
Bond Strength	ACI440.3R –B3	Minimum 20MPa	>8MPa



**Physical Properties**

<b><u>Property</u></b>	<b><u>Test Method</u></b>	<b><u>Test Result</u></b>	<b><u>Specified Limit CSA S807-10</u></b>															
Fiber Content (weight %)	ASTM D2584	>76	>70															
Cure Ratio	CSA S807 Annex A	100%	>95%															
Transverse Coefficient of Thermal Expansion	ASTM E831	$26 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$	$< 40 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$															
Water Absorption	ASTM D570	<table border="1"> <thead> <tr> <th><u>#</u></th> <th><u>Size</u></th> <th><u>%</u></th> </tr> </thead> <tbody> <tr> <td><u>3</u></td> <td><u>10</u></td> <td><u>0.25</u></td> </tr> <tr> <td><u>5</u></td> <td><u>15</u></td> <td><u>0.2</u></td> </tr> <tr> <td><u>6</u></td> <td><u>20</u></td> <td><u>0.18</u></td> </tr> <tr> <td><u>8</u></td> <td><u>25</u></td> <td><u>0.18</u></td> </tr> </tbody> </table>	<u>#</u>	<u>Size</u>	<u>%</u>	<u>3</u>	<u>10</u>	<u>0.25</u>	<u>5</u>	<u>15</u>	<u>0.2</u>	<u>6</u>	<u>20</u>	<u>0.18</u>	<u>8</u>	<u>25</u>	<u>0.18</u>	1.0 (D2); 0.75 (D1)
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Glass Transition Temperature	ASTM D3418	Average Value of 125°C with Lowest Number of 119°C for All Sizes	>100°C															
Void Content	ASTM D51117	No Wicking	-															



**Durability Properties**

<b><u>Property</u></b>	<b><u>Test Method</u></b>	<b><u>Test Result</u></b>	<b><u>Specified Limit CSA S807-10</u></b>									
Tensile Properties at Cold Temperature (-40°C)	ASTM D618 & CSA S806-12 Annex C	Increased in Property by 3% for 20mm Bar & No More than 5% for 15mm Bar	Not More than 5% Drop in Tensile Property									
Alkali Resistance in High pH(13) Solution without Load at 60°C and 90 Days	ACI 440 Method B6	<table border="1"> <thead> <tr> <th>#</th> <th>Size</th> <th>Strength Retention(%)</th> </tr> </thead> <tbody> <tr> <td><u>5</u></td> <td><u>15</u></td> <td><u>90%</u></td> </tr> <tr> <td><u>6</u></td> <td><u>20</u></td> <td><u>86%</u></td> </tr> </tbody> </table>	#	Size	Strength Retention(%)	<u>5</u>	<u>15</u>	<u>90%</u>	<u>6</u>	<u>20</u>	<u>86%</u>	>80%
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