



**Test Evaluation for Department of Defense  
 performed by US Army Corps of Engineers**  
*Polymer Concrete Material Evaluation Report*  
*Air Force Flight Line*



**US Army Corps  
 of Engineers®**

<b>Product Information</b>	<b>Name of Product:</b>	DOD/DOT 30 MR	<b>Manufacturer:</b>	Polywux
	<b>Material Description:</b>	Hybrid Polymer Composite		
<b>Testing Agency</b>	<b>Address:</b>	6300 Sagewood Dr. H400 Park City, Utah 84098	<b>Telephone:</b>	435-640-4870
			<b>Website:</b>	<a href="https://polywux.com">https://polywux.com</a>
		US Army Corps of Engineers Engineer Research and Development Center 3909 Halls Ferry Rd., Vicksburg, MS 39180	<b>Date Tested:</b>	May-19
			<b>Overall Result (Pass/Fail):</b>	Pass

**Testing Summary**

Test Property	Test Method	Test Age	Criteria	Lab Test Result	Unit	Pass/Fail
Compressive Strength	ASTM C579	2 hr.	≥ 2500 psi @ 2 hr	7,070	psi	Pass
		3 hr.	≥ 3000 psi @ 3 hr	9,040	psi	Pass
		1 day	≥ 4000 psi @ 1 day	11,020	psi	Pass
		7 day	≥ 5000 psi @ 7 day	14,020	psi	Pass
		28 day	≥ 5000 psi @ 28 day	14,290	psi	Pass
		2 hr.	≥ 350 psi @ 2 hr	2,715	psi	Pass
Flexural Strength	ASTM C78	28 day	≥ 600 psi @ 28 day	3,220	psi	Pass
		7 day	≥ 500 psi @ 7 day	3,120	psi	Pass
Bond Strength Repair Material to Repair Material	ASTM C882	1 day	≥ 1000 psi @ 1 day	1,200	psi	Pass
		7 day	≥ 1250 psi @ 7 day	1,800	psi	Pass
Bond Strength Repair Material to Ordinary PCC	ASTM C469	1 day	≥ 1000 psi @ 1 day	1,340	psi	Pass
		7 day	≥ 1250 psi @ 7 day	1,860	psi	Pass
Modulus of Elasticity Time of Set	ASTM C403	2 hr	2 ≤ X ≤ 6 Mpsi @ 2 hr	2.78	Mpsi	Pass
		28 day	2 ≤ X ≤ 6 Mpsi @ 28 day	4.47	Mpsi	Pass
		Initial Set	Initial Set: ≥ 15 min	41	min	Pass
Thermal Compatibility	ASTM C884	Final Set	Final Set: 15 - 90 min	45	min	Pass
		Test to begin after 7 day cure	No Delamination	No Delamination	-	Pass
Chemical Resistance	ASTM C267	Test Method B- JP-8 Exposure	≤ 20% strength loss at 66° C @ 1 day	5	%	Pass
		Test Method B- Fuel B Exposure		3	%	Pass
		Test Method B- Oil-3 Exposure		2	%	Pass
		Test Method B- JP-8 Exposure	≤ 10% weight change at 66° C @ 1 day	2	%	Pass
		Test Method B- Fuel B Exposure		1	%	Pass
Dynamic Mechanical Analysis	ASTM D5023	Test Method B- Oil-3 Exposure		1	%	Pass
		Sinusoidal 3-point bending, -50 to 200 °C	> 60 °C @ 7 day	Failure at 80°C	°C	Pass