



## TECHNICAL BULLETIN #134 MERKRETE ANSI MORTARS

The American National Standards Institute (ANSI) offers three (3) performance classifications for Portland Cement Mortars; ANSI A118.1, A118.4, and A118.15.

ANSI A118.1 “Good” Standard Dry-Set Cement Mortar ANSI  
 A118.4 “Better” Modified Dry-Set Cement Mortar  
 ANSI A118.15 “Best” Improved Modified Dry-Set Cement Mortar

The Tile and Stone industry has separated the performance specifications and when used with ISO 13007 performance standard, Architects, Installers, and owners can select the level of performance that is required on the job.

Alternate criteria:

Exterior Glued Plywood (EGP) Mortars, A118.11  
 Isolation Membranes for Thin-Set Ceramic Tile and Dimensional Stone, A118.12 Bonded Sound  
 Reduction Membranes for Thin-Set Ceramic Tile Installation, A118.13

ANSI Performance Ratings				
MERKRETE MORTARS	ANSI 118.1	ANSI 118.4	ANSI 118.11	ANSI 118.15
<b>700</b>	X		X*	
<b>705</b>		X	X	
<b>703</b>		X	X	
<b>710</b>		X	X	
<b>7D10</b>		X	X	
<b>720</b>		X	X	
<b>720 RS</b>		X	X	
<b>735</b>		X	X	X
<b>750 RS</b>		X		
<b>760</b>		X	X	X
<b>820</b>		X	X	X
<b>855</b>		X	X	
<b>856</b>		X	X	X

\* When used with 150 Latex

## ANSI SPECIFICATIONS

TESTING PARAMETERS		ANSI 118.1	ANSI 118.4	ANSI 118.11	ANSI 118.15
Open Time	20 minutes at 28 days	> 75 psi (0.5MPa)	> 75 psi (0.5MPa)	> 75 psi (0.5MPa)	> 75 psi (0.5MPa)
Extended Open Time	Optional 30 Minutes at 28 Days	> 75 psi (0.5MPa)	> 75 psi (0.5MPa)	> 75 psi (0.5MPa)	> 75 psi (0.5MPa)
Sag	Optional characteristics for non-sagging mortars only	< 0.02 in (0.5mm)	< 0.02 in (0.5mm)	< 0.02 in (0.5mm)	< 0.02 in (0.5mm)
EGP	Exterior Glue Plywood			Testing includes A118.4 and as defined in A118.11	
<b>Type A</b> Glazed Wall Tile Shear Strength	7 days	>200 psi (1.38MPa)	> 300 psi (2.07 MPa)	> 300 psi (2.07 MPa)	> 450 psi (3.10MPa)
	7 day water immersion	> 150 psi (1.03MPa)	>200 psi (1.38MPa)	>200 psi (1.38MPa)	>250 psi (1.71MPa)
	28 day heat aging				>450 psi (3.10MPa)
<b>Type C &amp; E</b> Porcelain Mosaic Shear Strength	1 day	> 50 psi (0.34 MPa)	> 75 psi (0.5 MPa)	> 75 psi (0.5 MPa)	> 100 psi (0.69MPa)
	7 days	> 150 psi (1.03MPa)	> 200 psi (1.38 MPa)	> 200 psi (1.38 MPa)	> 300 psi (2.07MPa)
	7 day water immersion	> 100 psi (0.69 MPa)	> 150 psi (1.03MPa)	> 150 psi (1.03MPa)	>200 psi (1.38MPa)
	28 days	> 150 psi (1.03MPa)	> 200 psi (1.38 MPa)	> 200 psi (1.38 MPa)	> 400 psi (2.76MPa)
	28 day w/ freeze thaw cycling		>175 psi (1.21MPa)	>175 psi (1.21MPa)	>250 psi (1.72MPa)
	28 day heat aging				>400 psi (2.76MPa)
	12 weeks	> 150 psi (1.03MPa)	> 200 psi (1.38 MPa)	> 200 psi (1.38 MPa)	
<b>Type D</b> Quarry Tile Shear Strength	28 days		> 150 psi (1.03MPa)	> 150 psi (1.03MPa)	> 150 psi (1.03MPa)
	28 day w/ freeze thaw cycling		> 100 psi (0.69MPa)	> 100 psi (0.69MPa)	> 100 psi (0.69MPa)

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