DYNAMORTAR +™

SANDED TYPE S MORTAR MIX

Salt River Materials Group
100% American™

Dynamortar Plus™ is a preblended dry mortar mix of dry fine aggregate and ASTM C 91 Type S Masonry cement thoroughly blended to provide masonry mortar that is highly workable with outstanding water retention and durability. With the addition of only water at the mixer, preblended Dynamortar Plus™ produces a Type S masonry mortar meeting both the Property and Proportion Requirements of ASTM C 270 for use in the construction of both reinforced and non-reinforced unit masonry structures. Dynamortar Plus™ mixed mortar bonds masonry units into an assemblage influencing the structural properties while adding to water resistance.

Manufacture and Use

Dynamortar Plus™ is manufactured with mortar mix materials that are dry, accurately maintained, controlled and measured batch to batch.

Preblended Dynamortar Plus™ is stored and covered in such a manner as to prevent hardening, deterioration, contamination, segregation or intrusion of foreign material.

Construction Practices

Mixing Mortars - Dynamortar Plus™ should be mixed between 3 and 5 minutes in a mechanical batch mixer with the maximum amount of water to produce a workable consistency. Hand mixing Dynamortar Plus™ mortar is acceptable provided written approval of the specifier is achieved outlining the specific hand mixing procedures.

Tempering Mortars - Dynamortar Plus™ mixed mortar that has stiffened can and should be retempered by adding water as frequently as needed to restore the required consistency the mason demands. As with all mixed mortar, Dynamortar Plus™ mixed mortar should be applied within 2 ½ hours after mixing per ASTM C 270 requirements.

Plastic Properties

Workability - Mortar made with Dynamortar Plus™ exhibits outstanding workability and water retention characteristics. Good workable mortar is key to achieving maximum bond with masonry units. Workable mortar made with Dynamortar Plus™ results from a combination of plasticity, consistency, cohesion and adhesion, best assessed by the mason through how easily the mortar is spread with a trowel.

Water Retention - Mortar made with Dynamortar Plus™ exhibits high water retention capacity, the ability to retain mixing water and, therefore, long lasting workability under the influence of evaporation and masonry unit suction. Dynamortar Plus™ masonry mortar gives the mason time to place and adjust a masonry unit without the mortar stiffening too quickly.

The plastic properties of mortar made with Dynamortar Plus™ make for excellent construction suitability which in turn influences the properties of the hardened mortar and, therefore, of the finished structural assemblage.

Hardened Properties

Bond - Due to the level of workability, Dynamortar Plus™ provides excellent bond between mortar and the masonry units. Perhaps the most important single physical property of hardened mortar, bond is influenced by many variables and thus difficult to measure. The workable, plastic flow and water retention properties of mortar made with Dynamortar Plus™ provide the essential elements for maximum bond.

Compressive/Flexural Strength - Dynamortar Plus™ is formulated to meet ASTM C 270 strength requirements for Type S masonry mortar. Adequate compressive strength relates to flexural or tensile strength, or more adequately stated, the ability of a mortar to resist cracking.

Durability - Dynamortar Plus™ inherently provides exceptionally durable mortar due to microscopic bubbles of entrained air, and mortar properly placed and tooled resists water penetration, thereby providing the highest degree of durable masonry structures. Parapets, masonry paving, retaining walls, and other masonry exposed to freezing while saturated represent extreme exposures and thus require a more durable mortar, and Dynamortar Plus™ is formulated with durability and sustainability in mind.

Properties of hardened mortars made with Dynamortar Plus™ make for high quality, durable and sustainable finished masonry performance.

ASTM C 270 Proportion Specification Requirements

Mortar	Type	Portland Cement or Blended Cement	Mortar Cement			Masonry Cement			Hydrated Lime or Lime Putty	Aggregate Ratio (Measured in Damp, Loose Condition)
			M	S	N	M	S	N		
Masonry Cement	M	1	...	...	...	...	...	1	...	Not less than 2 1/4 and
	M	...	...	...	...	1	...	...	...	not more than 3 times
	S	1/2	...	...	...	...	...	1	...	the sum of the separate
	S	...	...	...	...	...	1	...	...	volumes of cementitious
	N	...	...	...	...	...	...	1	...	materials
	O	...	...	...	...	...	...	1	...	

ASTM C 270 Property Specification Requirements

Mortar	Type	Average Compressive Strength at 28 days, min, psi (MPa)	Water Retention, min, %	Air Content, max, %	Aggregate Ratio (Measured in Damp, Loose, Condition)
Masonry Cement	M	2500 (17.2)	75	18	Not less than 2 1/4 and not
	S	1800 (12.4)	75	18	more than 3 1/2 times the sum
	N	750 (5.2)	75	20	of the separate volumes of
	O	350 (2.4)	75	20	cementitious materials

Typical Dynamortar Plus™ Properties

	Air	C 270 Spec	Day 7	Day 28	C 270 Spec	H2O Ret	C 270 Spec
Minimum	6.6		1800	2340		83.8	
Average	9.6	18.0	2430	3142	1800	88.4	75.0
Maximum	11.3		3350	4030		93.0	
St. Dev.	1.6		478.3	551.5		2.8	

Mission Statement

Creating Opportunities and Solutions with Quality Products and Exceptional People

Values

Profitability The Right Way...
Integrity, Accountability, Excellence

SRMG
Salt River Materials Group
PHOENIX CEMENT
100% AMERICAN

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