MASTER® BUILDERS SOLUTIONS

MasterFiber® Selection Guide

SPECIAL CONDITIONS	USAGE	STRUCTURE TYPE	REPLACES	MASTERFIBER PRODUCT
• Adverse ambient conditions (ex: hot, dry, windy)	 • Reduces plastic shrinkage cracking	• Slab-on-ground • Driveways • Paving	N/A	**Monofilament** **M 35, M 70, M 100** **M 35:** 0.5 - 0.75 lb/yd³ (0.3 - 0.5 kg/m³) **M 70:** 0.75 - 1.5 lb/yd³ (0.4 - 0.9 kg/m³) **M 100:** 0.5 lb/yd³ (0.3 kg/m³) • Provides built-in protection
• Adverse ambient conditions (ex: hot, dry, windy)	 • Holds cracks tight • Reduces plastic shrinkage cracking	• Residential slab-on-ground • Driveways and sidewalks • Basement and garage slabs • Ultra-thin whitetopping • Topping slabs	 • Light gauge welded-wire reinforcement (WWR) 6x6 W1.4xW1.4 152x152-MW9.1xMW9.1	**Fibrillated** **F 70, F 100** **1.5 lb/yd³** **0.9 kg/m³** • Saves the contractor time • Improves jobsite safety • Ensures reinforcement is in the correct location
N/A	 • Holds cracks tight	• Slab-on-ground • Composite metal deck • Warehouse floors • Pavement • Whitetopping & overlays • Utility Precast	 • #3, #4 rebar 10 mm, 13 mm rebar • WWR	**MacroFiber** **MAC Matrix,** **MAC 100, MAC 360 FF, MAC 2200 CB*** **3 - 15 lb/yd³** **1.8 - 9.0 kg/m³** • Increases post-crack load-carrying performance • Increases ductility, energy absorption and impact resistance • Improves jobsite safety and saves time * Minimum dosage of 2.5 lb/yd³ (1.5 kg/m³)

Master Builders Solutions Technical Support: 800-628-9990

MasterFiber MAC Matrix, MAC 100, MAC 360 FF

Fiber dosage for replacing WWR for slab-on-ground, lb/yd³

		6 x 6				4 x 4			
Slab thickness (in.)	Concrete Compressive strength (psi)	W2.0xW2.0 (8/8)	W2.1xW2.1	W2.9xW2.9 (6/6)	W4.0xW4.0 (4/4)	W1.4xW1.4 (10/10)	W2.0xW2.0 (8/8)	W2.9xW2.9 (6/6)	W4.0xW4.0 (4/4)
4	3000				4.5			5	NA
	3500				4			4.5	
	4000				3.5			4	
5	3000				3.25			3.5	5.5
	3500				3			3.25	5
	4000				3			3	4.5
6	3000								4.5
	3500								4
	4000								3.5
7	3000								3.5
	3500								3.25
	4000								3
8	3000								
	3500								
	4000								
10	3000								
	3500								
	4000								

3 3

For specified welded-wire reinforcement (fy = 65 ksi) located in top third of slab

Fiber dosage for replacing rebar for slab-on-ground, lb/yd³

		#3 Rebar				#4 Rebar			
		On Center Spacing				On Center Spacing			
Slab thickness (in.)	Concrete Compressive strength (psi)	9"	12"	15"	18"	12"	15"	18"	24"
4	3000			4.5	3.5				5.25
	3500	NA	NA	4	3.25	NA	NA	NA	4.75
	4000			3.75	3				4.25
5	3000		4.5	3.5					4
	3500	NA	4	3		NA	NA	NA	3.5
	4000		3.75	3					3.25
6	3000	5.25	3.5					4.5	
	3500	4.75	3.25			NA	NA	4	
	4000	4.25	3					3.75	
7	3000	4.5					4.75	3.75	
	3500	4				NA	4.25	3.25	
	4000	3.5					4	3	
8	3000	3.5				5.25	4		
	3500	3.25				4.75	3.5		
	4000	3				4.25	3.25		
10	3000					4			
	3500					3.5			
	4000					3.25			

3 3

For specified rebar (fy = 60 ksi) located in top third of slab

PLASTIC-SHRINKAGE CRACK	TEMPERATURE CRACKING	DRYING SHRINKAGE CRACKING
A surface crack that occurs in concrete before initial set.	Cracking caused by temperature drop in members subjected to external restraints or by temperature differential in members subjected to internal restraints (also called thermal cracking).	Cracking caused by restraint to volume change due to loss of moisture from hardened concrete.

* For MasterFiber MAC 2200CB dosage contact your local Master Builders Solutions representative.

Visit us at: www.master-builders-solutions.com/en-us

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