

MasterFlow[®] Epoxy Grouts

Product Selector

PRODUCT	PERFORMANCE								APPLICATION					
	ELEVATED TEMP		FLOWABILITY		DYNAMIC LOAD	CHEMICAL RESISTANCE	LOW CREEP	HIGH BEARING	BASE PLATE FOUNDATION	NARROW CLEARANCE	ANCHOR BOLT			DEEP POUR (>6")
	GOOD	EXCELLENT	NORM	HIGH							SM	MED	LG	
MASTERFLOW 648		•		•	•	•	•	•	•	•		•	•	• ₁
MASTERFLOW 649		•	•		•	•	•	•	•				•	
MASTERFLOW 668		• ₂		•	•	•	•	•		• ₂				
MASTERFLOW 678		•		•	•	•	•	•	•			•	•	• ₃

(1) Consult Technical Service
 (2) For chock grouting and use in small pours
 (3) Pours up to 18"

PRODUCT DESCRIPTIONS

- MasterFlow 648**
High-strength, versatile high-flow grout
- MasterFlow 649**
High-strength, foundation grout
- MasterFlow 668**
Epoxy chock grout for mounting equipment
- MasterFlow 678**
Deep pour, multiple-use epoxy grout

Description

Master Builders Solutions epoxy grouts are three-component grouts consisting of a two-part epoxy resin and a high-performance blended aggregate. Different products within the range provide solutions for traditional, high flow, anchor bolt, and chock grouting applications.

Features

- High early and 7-day strengths
- Epoxy based
- High bond strength
- Variable fill ratio
- High flowability
- Superior physical properties at elevated temperatures

Benefits

- Rapid return of equipment to service
- Good chemical resistance
- Bonds to steel and concrete
- Optimum flowability, bearing area, and economics
- Excellent bearing area for even distribution of loads
- Ideal for heat-generating equipment

TECHNICAL DATA

PROPERTY	MasterFlow			
	648	649	668	678
Compressive strength, psi (MPa)				
73° F (23° C)	14,500 (100)	18,000 (124)	18,300 (126)	13,000 (89)
140° F (60° C)	11,500 (79)	7,800 (54)	13,100 (90)	15,000 (103)
170° F (77° C)	13,200 (91)	7,000 (48)	13,100 (90)	—
Modulus of elasticity, psi (GPa)				
73° F (23° C)	2.5x10 ⁶ (17.2)	2.6 x 10 ⁶ (18)	2.3 x 10 ⁶ (16)	7.2x10 ⁶ (50.8)
140° F (60° C)	—	1.8 x 10 ⁶ (12)	2.1 x 10 ⁶ (15)	—
170° F (77° C)	—	0.4 x 10 ⁶ (3)	1.7 x 10 ⁶ (12)	—
Creep, in/in (cm/cm), at 600 psi (4.4 MPa)				
140° F (60° C)	4.2 x 10 ⁻³	4.0 x 10 ⁻³	0.8 x 10 ⁻³	4.1 x 10 ⁻³

Where to Use

- Pulp and paper mills
- Steel mills
- Chemical processing plants
- Machinery, turbine, and compressor grouting
- Anchor bolt and dowel grouting
- Crane rail grouting

Environment

- Grouting where the foundation requires chemical resistance
- Installations with high early strength requirements
- Applications with high dynamic loads
- Repairs where downtime loss is substantial

How to Apply

APPLICATION

1. Chip foundation. Form using a headbox.
2. Mix resin and hardener first.
3. Mix aggregate with resin.
4. Place grout.
5. Consult specific product data sheet before installation.

ACCESSORIES AND TOOLS REQUIRED

- Proper Personal Protective Equipment (PPE) for products being used
- Slow speed electric drill with Jiffy-type paddle
- Mortar mixers
- Forming material
- Paste wax or form release
- Wheelbarrows and/or buckets for transporting grout
- Steel straps
- Duct tape to seal leaking forms

PACKAGING AND YIELD

PRODUCT	PACKAGING	YIELD FT ³ (M ³)
MasterFlow 648		
54.4 lb unit		0.4 (0.001)
Resin	one 5.5 lb pail (2.5 kg)	
Hardener	one 1.65 lb bottle (0.75 kg)	
Aggregate	one 47 lb bag (21.3 kg)	
216 lb unit		1.7 (0.05)
Resin	one 22 lb pail (10 kg)	
Hardener	one 6.6 lb bottle (3 kg)	
Aggregate	four 47 lb bags (21.3 kg)	
MasterFlow 649		
57.4 lb unit		0.43 (0.012)
Resin	one 5.6 lb pail (2.5 kg)	
Hardener	one 1.87 lb bottle (0.85 kg)	
Aggregate	one 50 lb bag (22.7 kg)	
230 lb unit		1.73 (0.05)
Resin	one 22.3 lb pail (10.1 kg)	
Hardener	one 7.6 lb bottle (3.4 kg)	
Aggregate	four 50 lb bags (22.7 kg)	
MasterFlow 668		
59.7 lb unit		0.47 (0.013)
Resin	one 8.33 lb can (3.78 kg)	
Hardener	one 1.37 lb bottle (0.62 kg)	
Aggregate	one 50 lb bag (22.7 kg)	
MasterFlow 678		
240 lb unit		1.8 (0.05)
Resin	one 16.0 lb pail (7.3 Kg)	
Hardener	one 8.0 lb bottle (3.6 Kg)	
Aggregate	four 54 lb bags (24.5 kg)	

Master Builders Solutions

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