

MASTERTOP® 300 ANVIL-TOP®

Heavy-duty, metallic aggregate topping

DESCRIPTION:

MASTERTOP® 300 ANVIL-TOP is an industrial floor topping which provides extended working time and extra heavy-duty protection against abrasion and impact. Whether applied over new concrete or over existing, hardened concrete, this topping gives an appreciably longer serviceable life than normal, high strength concrete or natural aggregate toppings. Along with high compressive strengths, MASTERTOP 300 ANVIL-TOP topping has a lower modulus of elasticity than equal strength concrete toppings. Thus, MASTERTOP 300 ANVIL-TOP is less brittle and more resistant to dynamic loads. Impact resistance and total energy-absorbing capacity, known as toughness, are also improved.

RECOMMENDED FOR:

- Key areas subject to heavy traffic, impact, abrasion and continuous wear – loading docks, aisles, waste transfer facilities, truck or tractor repair areas
- Areas where safety regulatory agencies have deemed other floor surfaces hazardous because of excessive wear, dangerously buckled steel plates, etc.
- Aircraft arrestor cable slabs

FEATURES/BENEFITS:

- High slump [5 to 7" (127 to 178 mm)] screedable consistency
- Easy application – sustained, screedable consistency allows ample time to place, float and finish
- Compressive strengths equivalent or superior to no-slump toppings
- High abrasion resistance – up to eight times more wear-resistance than plain concrete
- Greater toughness – energy-absorbing capacity is significantly greater than plain concrete and high strength, natural aggregate toppings
- Added impact resistance – tests show impact resistance three to four times greater than plain concrete
- High density – resists oil and grease, and many industrial chemicals
- Reduced shutdown time – floors can be returned to service faster
- Low maintenance costs – reduces dusting and absorption, therefore floors are easier to clean
- Protects against joint deterioration – minimizes damage to production goods and increases the life of material handling equipment

PACKAGING/ESTIMATING:

MASTERTOP 300 ANVIL-TOP topping is packaged in 55 lb (25 kg) moisture-resistant bags and 3,300 lb (1,497 kg) bulk bags.

One 55 lb (25 kg) bag of MASTERTOP 300 ANVIL-TOP topping mixed with 0.63 U.S. gallons (2.4 liters) of water provides approximately 0.28 ft³ (0.0079 m³) of topping. This amount will cover approximately 3.35 ft² (0.31 m²) at a 1" (25 mm) thickness.

NOTE: 0.63 U.S. gallons (2.4 liters) is the recommended amount of water for a 6" (152 mm) slump mix.

One 3,300 lb (1,497 kg) bulk bag of MASTERTOP 300 ANVIL-TOP mixed with 37.8 U.S. gallons (143 liters) of water [adjust water to achieve a 5 to 7" (127 to 178 mm) slump] provides approximately 16.8 ft³ (0.48 m³) of topping. This amount will cover approximately 201 ft² (18.7 m²) at a 1" (25 mm) thickness.

Use approximately 18.0 lbs/ft² (87.8 kg/m²) to produce a 1" (25 mm) thick topping. Under no circumstances should less than a 1/2" (12.5 mm) thickness be used.

NOTE: Contact your local Master Builders representative for information on application procedures, suggested armoring thicknesses and service.

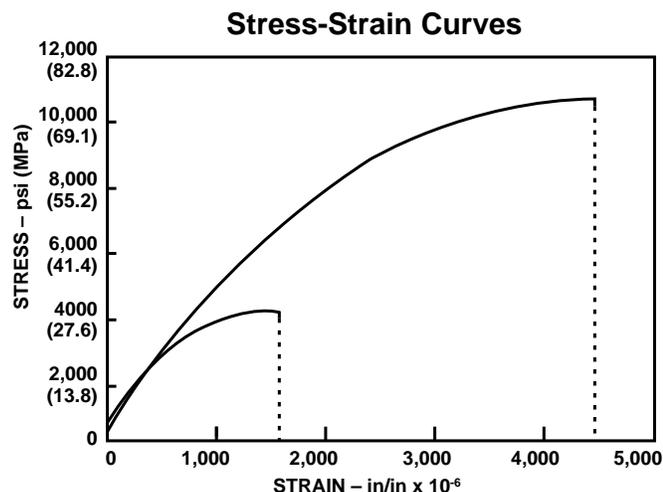
PERFORMANCE DATA¹:

Typical Compressive Strengths
[2" (50 mm) cubes cured at 70 °F (21 °C) using 0.63 U.S. gallons (2.4 liters) of water per 55 lb (25 kg) bag of topping.]

	psi	MPa
24 hours	5,040	34.8
7 day	8,800	60.7
28 day	12,050	83.1

Stress-Strain Test Data

[Tests for basic material properties of MASTERTOP 300 ANVIL-TOP topping vs. 4,000 psi (27.6 MPa) concrete utilized 3"x6" (76 mm x 152 mm) cylinders cured at 70 °F (21 °C).]



This data is included as reference to demonstrate the improved engineering properties of MASTERTOP 300 ANVIL-TOP topping as opposed to a plain concrete floor.

Product	Unit Weight [lb/ft ³ (kg/m ³)]	Modulus of Elasticity [x10 ⁶ psi (MPa)]	Maximum Strain in/in x 10 ⁻⁶	Toughness [in lb/in ³ (MPa)]
MASTERTOP 300 ANVIL-TOP	222 (3,556)	3.9 (0.027)	4,450	30.2 (0.21)
Plain Concrete	145 (2,323)	4.5 (0.031)	1,620	4.5 (0.03)

¹The data shown are based on controlled laboratory tests. Reasonable variations from the results shown may be experienced as a result of atmospheric and jobsite conditions. Field and laboratory tests should be controlled on the basis of the desired placing consistency rather than strictly on the water content. Mix an entire bag MASTERTOP 300 ANVIL-TOP topping when preparing cubes for strength tests.

APPLICATION:

Consult the MASTERTOP 300 ANVIL-TOP Installation Bulletin or product bag for details on the application of MASTERTOP 300 ANVIL-TOP topping.

Master Builders recommends that the user request the service of the local representative for a pre-job conference to carefully plan each step of the installation.

CURING:

Moist curing is necessary to attain the design strength, surface impermeability and wear resistance of the topping. Consult the MASTERTOP 300 ANVIL-TOP Installation Bulletin for complete curing instructions.

LIMITATIONS:

- Do Not Use:
 - In areas where a steel plate has worn through in less than one year.
 - In areas where the floor surface is exposed to acids, their salts or other materials which seriously and rapidly attack cement and/or iron.
- Do not apply MASTERTOP 300 ANVIL-TOP topping over fresh concrete containing calcium chloride, aggregate contaminated with salt water or more than 3% entrained air.
- Use only drinkable water when mixing MASTERTOP 300 ANVIL-TOP topping.

RELATED BULLETINS:

Material Safety Data Sheet – MASTERTOP 300 ANVIL-TOP Installation Bulletin 8I1 – MASTERTOP 300 ANVIL-TOP Specification Bulletin 8S1 – MASTERTOP 300 ANVIL-TOP

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