



SUPERSLUMP

High Range Water Reducer and Plasticizer for Concrete and Mortar

1. Product Description

a. **Basic Use:** Superslump is a liquid admixture for concrete and mortar that allows water reduction without sacrificing slump or workability. Through a chemical process, it internally lubricates the cement matrix to increase the efficiency of any cementitious system. This allows the production of concrete and mortars with higher strengths, better freeze/thaw resistance, and lower permeability. It can also be used to increase the workability of concrete and mortar while maintaining water content.

b. **Features/Benefits:**

- Easy to use by direct addition to concrete or mortar.
- Reduces required water thereby enhancing hardened properties.
- Normal set times virtually unaffected with normal dosage rates.
- Contains no added calcium chloride or other corrosive agents.
- Takes hard to work concrete to easily placed high slumps.
- Can be used with air entrained systems.
- Excellent for use as a pumping aid.

c. **Typical Applications:** Ready-mix concrete, job mixed mortars, footers, grouts, flatwork, heavily reinforced structural concrete, high strength concrete.

d. **Limitations:** Keep Superslump from freezing in storage.

e. **Composition:** Superslump is a blend of chemicals in a water-based system that are non-corrosive to concrete and mortar.

f. **Color/Appearance:** Superslump is a dark brown liquid in the container, but has no effect on the color of concrete or mortar.

2. Packaging

Superslump is available in 1-gal. (3.8 liter) jugs (4 jugs per case), 5-gal. (18.9 liter) pails, and 55-gal. (208 liter) drums.

3. Estimating/Coverage

To properly dose with Superslump, the cement factor or content of the concrete or mortar must be known. Most applications will use 10 oz. (0.30 liter) to 14 oz. (0.40 liter) of Superslump per 100-lbs. (45 kg) of cement. The normal maximum range is 6 oz. (0.18 liter) to 18 oz. (0.52 liter) per 100-lbs. (45 kg) of cement.

4. Technical Data

a. **Applicable Standards:** ASTM C 494, Standard Specification for Chemical Admixtures for Concrete, Types A and F.

b. **Typical Water Reduction in 4 in. (102 mm) Slump Concrete:** 15% to 20%.

c. **Slump Retention:** 30 minutes.

d. **Typical Slump Increases:**

<i>Starting</i>	<i>Dosage</i>	<i>Ending</i>
<i>2 in. (51 mm)</i>	<i>14 oz. (0.40 liter)</i>	<i>8 in. (203 mm)</i>
<i>3 in. (76 mm)</i>	<i>12 oz. (0.35 liter)</i>	<i>9 in. (229 mm)</i>
<i>4 in. (102 mm)</i>	<i>10 oz. (0.30 liter)</i>	<i>8 in. (203 mm)</i>

e. **Compressive Strength:** Superslump vs. control at a 4 in. (102 mm) slump.

<i>Age</i>	<i>Control</i>	<i>Superslump</i>
<i>1 day</i>	<i>1,300 psi (9.0 MPa)</i>	<i>2,300 psi (16 MPa)</i>
<i>3 days</i>	<i>2,000 psi (14 MPa)</i>	<i>2,800 psi (19 MPa)</i>
<i>7 days</i>	<i>3,000 psi (21 MPa)</i>	<i>3,900 psi (27 MPa)</i>
<i>28 days</i>	<i>4,000 psi (28 MPa)</i>	<i>5,000 psi (35 MPa)</i>

5. Directions for Use

a. **Preparation:** Normally, standard concrete or mortar mixes should be mixed with an approximately 30% water reduction as a starting point. Add Superslump and mix for 3 minutes and check for desired slump or flow. Add additional water to make final adjustments and mix for 2 additional minutes. Keep track of water and Superslump dosage for additional batches. On applications where additional slump or flow is needed, add Superslump to the standard mix and blend for 3 to 5 minutes. Adjust Superslump to achieve desired workability. Concrete utilizing Superslump will flow farther and expect greater form pressures than with standard concrete. Forms should be built accordingly.

6. Availability

Superslump is normally available immediately from your local distributor or it will be shipped within 5 working days upon receipt of order. Please contact your local Metalcrete representative or call Metalcrete directly for more information.

7. Warranty

Superslump is manufactured in strict accordance with the quality control standards of Metalcrete Industries. It is guaranteed to perform as indicated on this data sheet when used in accordance with printed instructions.

8. Technical Service

Metalcrete technical service representatives are available to provide on-site assistance with a minimum three day notice.



Metalcrete Industries

4133 Payne Avenue • Cleveland, Ohio 44103
440-526-5600 • 800-526-5602 • FAX 440-526-5601