



innovative chemical technologies, inc.

FLEXISPERSE CA-47

TECHNICAL DATA SHEET

- ◆ **Concrete, Light Weight Aggregate And Mortar Additive**
- ◆ **Increases Flexibility/Reduces Cracking**
- ◆ **Enhances Adhesion**
- ◆ **Reduces Water Permeability**
- ◆ **Increases Durability And Strength**
- ◆ **Reduces Spalling And Surface Degredation**
- ◆ **Low Odor**
- ◆ **Freeze/Thaw Stable**
- ◆ **Solvent Free**

Applications

- ◆ **Polymer Modified Concrete, Light Weight Aggregate And Mortar**
- ◆ **Patching And Repair Mortar**
- ◆ **Basement Waterproof Coatings**
- ◆ **Floor Resurfacing And Underlayment**
- ◆ **Tile Grouts**
- ◆ **Regular And Light Weight Spray Applied Coatings**
- ◆ **Trowel Applied Stuccos**
- ◆ **Industrial/Commercial Cement Flooring**

TECHNICAL INFORMATION

Flexisperse CA-47 is a low-odor polymeric dispersion designed for modifying Portland cement compositions. It provides increased water resistance, excellent adhesion, improved flexibility and strength. Cement and mortar modified with Flexisperse CA-47 have superior flexural, impact, and tensile strength. Flexisperse CA-47 improves water and abrasion resistance. Flexisperse CA-47 modified cement and mortar resist cracking associated with water damage from freezing and thawing. The properties of flexural and tensile strength, density, water resistance, durability, adhesion, and impact strength are all related to the specific formulation used. These properties can be optimized by careful selection of the filler to sand ratio and the amount of Flexisperse CA-47 in the formula. Typically, a 3/1 sand to cement ratio provides excellent mechanical properties. Research has shown that the strength of cement is directly proportional to the density of the cement. Polymer modified cementitious products have a tendency to entrain air and thus reduce the density. Therefore a commercially available defoamer, such as Flexistop AF-333, should be used to reduce air entrainment and maintain highest density possible. When preparing the cement, the Portland cement and filler material should first be thoroughly mixed. Then the water, Flexisperse CA-47, and defoamer which are premixed should be added. Flexisperse CA-47 has a plasticizing effect and thus the amount of water may need to be reduced compared to unmodified cement.

FORMULARY

Cementitious Spray Coating

<u>Material</u>	<u>Parts by Weight</u>
Portland cement, Type I	100.0
XO Aggregate	100.0
Flexisperse CA-47	21.0
Flexistop AF-333	0.1-0.2
Water	To desired consistency

Cementitious Basement Waterproof Coating

<u>Material</u>	<u>Parts by Weight</u>
Portland cement, Type I	100.0
XO Aggregate	100.0
Flexisperse CA-47	43.0
Flexistop AF-333	0.6
Water	To desired consistency

Cementitious Patch and Repair Mortar

<u>Material</u>	<u>Parts by Weight</u>
Portland cement, Type I	100.0
Sand	300.0
Flexisperse CA-47	21.0
Flexistop AF-333	0.1
Water	To desired consistency

Cementitious Stucco

<u>Material</u>	<u>Parts by Weight</u>
Portland cement, Type I	100.0
Georgia Marble RH-1	8.0
Sand	350.0
Chopped Glass PPG #600M	1.0
Flexistop AF-333	0.4
Flexisperse CA-47	22.0
Water	To desired consistency

TYPICAL PROPERTIES

Appearance	Milky white emulsion
Density @ 25C	1.04 +/- 0.02 g/ml
pH	8.0-9.0
Water Solubility	Dispersible
Boiling Point	100 C
Odor	Mild

PACKAGING/HANDLING

Flexisperse CA-47 is available in 275 gallon totes (Net Wt. 2250 lbs), 55 gallon drums (Net Wt. 450 lbs) and 5 gallon pails (Net Wt. 40 lbs).
DOT Classification is Non Regulated