XIAMETER® AFE-0700 Antifoam Emulsion

10 percent active silicone emulsion

FEATURES

- Stable at a wide pH range (pH 4-12)
- Excellent foam control persistence (see Figures 1 and 2)
- Outstanding dilution stability in tap and demineralized water – stable for at least 5 weeks at 2 percent active content in tap water (see Figure 3)
- Easy to disperse in aqueous systems
- Complies with key chemical control laws and regulations, including TSCA, EINECS and MITI-ENCS, and is exempt from tolerance at 40 CFR 180.1001.920
- Improved antifoam performance even at higher temperature

APPLICATIONS

- Possible application areas include agrochemicals, waste water treatment, industrial cleaning, chemical processing and textiles (scouring, sizing, postfinishing, top, hang and continuous dyeing)

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local XIAMETER® sales representative prior to writing specifications on this product.

CTM[1]	Test	Unit	Value
0176B	Appearance		Off-white emulsion
0050	Viscosity[2]	mPa.s	1500
0007A	pH		7-9
0862A	Nonvolatile Content	%	14
	Active Ingredient	%	10
	Emulsifier Type		Nonionic[3]
	Diluent		Water

[1]CTMs (Corporate Test Methods) are similar to standard ASTM tests in most instances. Copies of CTMs are available upon request.
[2]Brookfield spindle #3 at 20 rpm.
[3]Contains a small amount of anionic ingredient.

COMPOSITION

- Silicone antifoam emulsion

DESCRIPTION

XIAMETER® AFE-0700 Antifoam Emulsion is designed to provide optimum antifoam performance combined with good dilution stability and compatibility in various systems.

XIAMETER AFE-0700 Antifoam Emulsion can be used in a wide variety of applications. It is characterized by very good dilution stability in tap and demineralized water as well as excellent long term foam control persistence.

HOW TO USE

XIAMETER AFE-0700 Antifoam Emulsion should be diluted with water prior to use to accelerate dispersion in the foaming medium. A starting point dilution of 1 part XIAMETER AFE-0700 Antifoam Emulsion with 5 parts of water is suggested.

The preferred method of dilution is to add water to the emulsion, not vice versa. Avoid excessive shear. Preprocess testing is recommended.

Suggested starting concentration is 50-100 ppm active ingredient.

PRODUCT SAFETY INFORMATION

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL, ENVIRONMENTAL, AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE XIAMETER® WEB SITE AT WWW.XIAMETER.COM.

XIAMETER Antifoam Emulsion is unaffected by freeze/thaw cycles. If the product freezes, it should be stored at room temperature to thaw, then remix at room temperature before use.

STORAGE AND TRANSPORT

Product should be stored between 5 and 35°C (41 and 95°F) in original, unopened containers. The most up-to-date shelf life information can be found on the XIAMETER Web site in the Product Detail page under Sales Specification.

During prolonged storage there may be a slight tendency for product separation; therefore, it is recommended that XIAMETER AFE-0700 Antifoam Emulsion be gently agitated prior to use to ensure homogeneity.

XIAMETER AFE-0700 Antifoam Emulsion will freeze below 0°C (32°F). If frozen, allow to thaw at 18-29° C (64.4-84.2°F) for at least one day and agitate gently to assure homogeneity.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses. Not intended for human injection. Not intended for food use.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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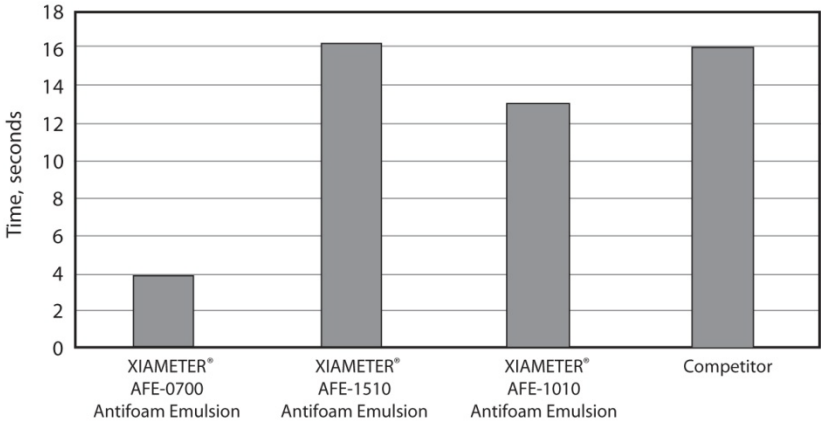
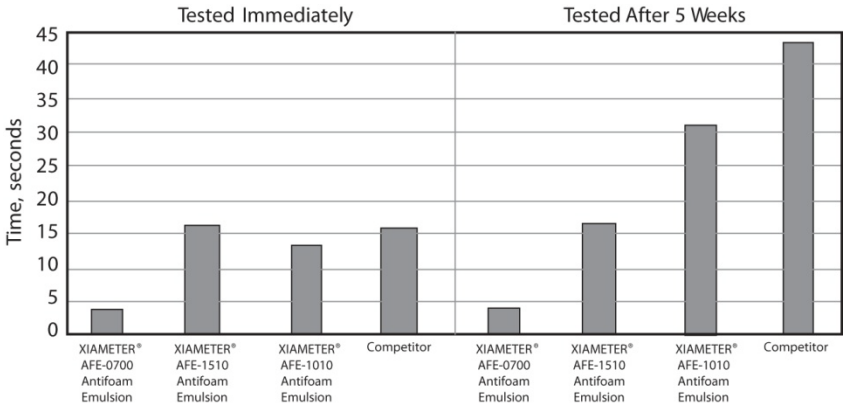
Figure 1: Antifoam Persistence at 23°C (73.4°F) (CTM 0844 Results After 120-second Shake Time)



Method: 100 mL of a foaming solution (1% *Triton*®[1] X 100 in water) is filled in a 250-mL bottle. The bottle is fixed in a wrist-action shaker and shaken for 120 seconds, after which the time for the breakdown of the formed foam is recorded. Shorter breakdown times indicate better antifoam persistence. A detailed description of the CTM 0844 (Corporate Test Method) is available on request.
[1]*Triton* is a registered trademark of Union Carbide Corporation, a subsidiary of The Dow Chemical Company.

Figure 2: Antifoam Persistence – Immediate and After Aging (CTM 0844 Results After 120-second Shake Time)



Test conditions are identical to test done in Figure 1. Storage conditions: 5 weeks at room temperature.

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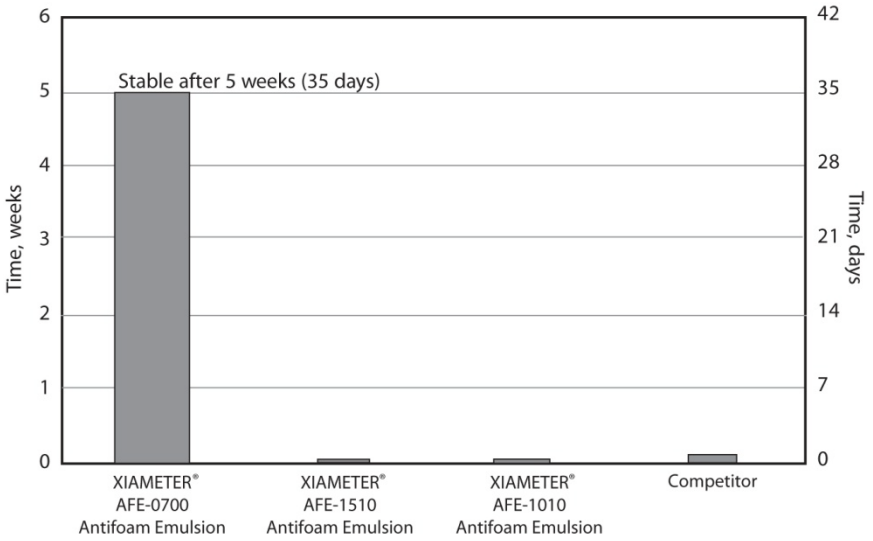
Figure 3: Dilution Stability of XIAMETER AFE-0700 Antifoam Emulsion [1]



[1]2 percent active at 25°C (77°F).

The antifoam emulsions were diluted with tap water and mixed at low shear. Dilutions were considered stable if no signs of separation were observed (i.e., sedimentation, particle coalescence or creaming of the active ingredients). Note: The quality of tap water varies among geographic regions, which can affect dilution stability results.

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