Concentrate on savings with silicone antifoams

Silicones have been used in laundry products for more than 40 years to provide effective foam control in consumer washing machines. For today’s laundry care applications, Dow offers a wide variety of silicone additives for foam control, including:

- DOWSIL™ AF-8014 Antifoam
- DOWSIL™ AC-8066 Antifoam

Thanks to their long-lasting performance and low use levels, silicone antifoams typically are recognized as a cost-effective solution for foam control in detergents. They offer efficient and robust foam control over a broad range of temperatures and wash conditions.

Dow’s silicone antifoams help formulators develop detergent products at a lower cost because the silicones can replace conventional fatty acids at approximately one-tenth of the traditional usage rate.

Used in much smaller amounts, the silicones are effective antifoams at very low addition levels, such as 0.1 to 0.2%. In testing, DOWSIL™ AF-8014 Antifoam and DOWSIL™ AC-8066 Antifoam – both at 0.2% addition levels – were compared with coconut fatty acid at 2% (Figure 1). The silicones showed similar foam profiles to the fatty acid – at significantly lower addition levels.

FIGURE 1: Antifoam performance in prototype detergent – 11% surfactant

Reduce costs and materials with silicone antifoams

- For heavy-duty liquid and unit-dose laundry detergents
- Replaces soap/fatty acids in formulations
- Lowers raw material consumption, with equivalent performance
  - Effective at 10% of the usage level required for fatty acids
- Provides fast foam-breaking during the rinse cycle
- Pricing tends to be less volatile
- Allows compaction of formulations for:
  - Smaller bottles and packaging
  - Lower transportation costs
  - Less space on retail shelves
  - Sustainability benefits

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Added benefit: Product flexibility and compaction

In laundry care, consumers may not think of “shrinking” as a good thing. But for the manufacturers of liquid and unit-dose detergents, the compaction of formulations can provide significant advantages. The use of silicone antifoams is an ideal solution for the creation of unit-dose and concentrated-liquid detergent applications.

A compact product can mean smaller bottles and packaging. In turn, that can lead to lower transportation costs and a reduction in raw materials used for the product and the packaging. Compact products take up less space on retail shelves and help with the sustainability scorecard ratings of large retailers.

As producers strive to make heavy-duty detergent formulations more compact and to create new delivery forms, silicone antifoams from Dow help provide flexibility to the formulators.

Want to see how our silicone additives will work in your application?

Scan this code or go to consumer.dow.com to request a sample.

Need more information?

Dow has extensive experience in assessing antifoams and softening agents. Leverage our expertise to help you determine which additives are best suited to your application and how much you need. Simply visit consumer.dow.com to learn how we can help you bring performance and cost-effectiveness to your products.

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