SIO-7893 Waterborne Silicone Emulsion (Water & Oil Repellent)

Overview

SIO-7893 is a silicone polymer emulsion system designed for imparting water and oil repellency to paper, molded pulp, and other substrates under high-temperature conditions.
The product forms a thin hydrophobic and oleophobic film layer on the substrate surface, achieving strong water and oil resistance. The performance can be further adjusted through the use of additives as required.

SIO-7893 serves as an excellent silicone-based barrier material for food-contact applications, combining food compliance with outstanding hydrophobicity, oleophobicity, heat resistance, and anti-stick properties.

Key Advantages

- Suitable for a wide range of coating machines
- Fast curing
- Excellent bath stability
- Strong adhesion to various substrates
- Versatile and easy to apply

Physical Properties

Property	Typical Value	Unit / Note
Appearance	Milky white liquid	—
Solid content	Approx. 41	%
pH	Approx. 4	—
Emulsion type	Non-ionic	—
Dilution	Cold water	—

Applications

SIO-7893 is recommended for water and oil repellent coatings in the following areas:

- Paper (e.g., baking paper, cake paper, food packaging paper, industrial packaging, specialty paper)
- Molded pulp (spray coating applications)
- Other substrates requiring heat-resistant, oil-repellent, and anti-stick coatings

Instructions for Use

SIO-7893 should be used together with a catalyst, such as H-890.

Typical formulation:

- SIO-7893 …… 100 parts
- H-890 …… 2–5 parts
- Dilution water …… Adjust to target solid content

Bath preparation:

- Slowly add dilution water into SIO-7893 under medium-speed stirring, maintaining constant agitation.
- Add H-890 and other desired additives afterward.
- The combination of SIO-7893 and H-890 contains only substances currently approved for food contact (as listed in BGVV Chapters XVA–XXXVI and FDA CFR 21 Parts 175.300, 176.170, and 178.3400).

Notably,this formulation does not contain alkylphenol ethoxylate (APE)-based surfactants.

Packaging

SIO-7893 is supplied in 180 kg drums and 950 kg IBCs, each equipped with breather valves.

Storage and Shelf Life

Store in its original, unopened container with a breather valve at +2°C to +30°C.
Under these storage conditions, the product has a shelf life of 12 months.