WACKER® FINISH CT 208 E

Functional Silicone Fluids

WACKER® FINISH CT 208 E is a nonionic macroemulsion of a reactive polysiloxane. It is a selfcrosslinking one component finish producing insoluble silicones which impart flexible, shape-stabilising characteristics to textile fabrics. The effects thus produced are unaffected by domestic laundering and dry cleaning.

Properties

Specific features

- Low VOC
- One-component
- Self-crosslinking

Technical data

General Characteristics

Property	Condition	Value	Method
Solid content	-	66 %	-
Appearance	-	milky-white liquid	-
Active substance content	-	60 %	-
Ionic nature	-	nonionic	-

These figures are only intended as a guide and should not be used in preparing specifications.

Applications

- Fiber Finishing
- Fiber Finishing
- Textile & Leather
- Textile Finishing

Application details

- fibre fill finish
- easy-care finish for bed, table and hospital linen, shirts
- provides shape to knitted and woven products made of synthetic, glass and other fibres, as well as felts and non wovens.

Processing:

Fibre fill finish

imparts slickness and resilience to polyester fill fibre. has proven favourable for use in quilts, pillows and similar articles. The effects thus produced are unaffected by domestic laundering and dry cleaning.

Polyester fill fibre can be rendered resilient with . is applied to the fill fibres by dipping and padding or spraying. The practical concentration of application depends on the impregnating method (spraying or dipping and squeezing). Particularly recommended for this, the add on weight being 0.3 - 0.8 %. Drying and crosslinking is obtained by heating up to 120-160 °C for few minutes.

Easy-care finish

is applied to the fabric or fill fibres by dipping and padding or spraying. The silicone finish will cure quickly if the fabric is heat dried, more slowly if it is dried at room temperature.

The air permeability may be substantially unchanged or reduced, depending on the amount of silicone that has been applied. Fabrics are given a resilient, elastic handle, improved shape retention during laundering and good antipilling properties, whose extent will depend on the type of fibre.

The water repellency of fabrics which have been treated with is fair directly after application. If the fabric is washed (delicate fabric cycle at 40 °C) after application of the silicone finish, and well rinsed, very good water repellency is achieved.

The amount of used will depend on the type of fibre as well as the type of yarn and weaving structure. Absorbent fabrics will require more silicone than those with poorer absorbency. Similar considerations apply to the comparison between fine, soft, individual fibres, thin, smooth yarns and light, smooth fabrics with coarser, stiffer individual fibres, rough, bulky yarns and heavy, profiled fabrics. Generally, more impregnating agent is required for achieving a flexible finish than for achieving smoothness and softness. The crosslinked silicones act as support and absorbing forces, forming weblike structures at the points of intersection of the fibres. The product should be applied at a rate of between 1 % and 5 %. To impart flexibility to fabrics made of synthetic fibres and others with low water absorption, it is advisable to use without mixing it with organic resins. The treated textiles are given an outstanding flexible touch. The concentration at which the product is used will depend on the type of article and fibre, and the desired effect. For high-quality easy-care finish to bed, table and hospital linen, shirts and similar articles, we recommend a mixture of synthetic resin and the appropriate acid catalyst and The finish and touch can be controlled by varying impregnating bath concentration and the ratio of synthetic resin to silicone. In this type of application, the silicone not only imparts a flexible touch but also improves tear strength and gives better resistance to laundering and scrubbing.

Decorative glass fibre fabrics are improved especially by impregnation with . They loose their flabbiness, become pleasantly supple and firmer in structure. Felt articles made of natural or synthetic fibre can be impregnated with to make them resilient. Here it should be noted that these products must be dried for a long time to allow the water elinging to the material to evaporate completely. The full resilience becomes apparent only when the water has disappeared completely and the felt has been heated for a few minutes to 130 °C-150 °C to crosslink the silicone.

can be used as a binder for nonwovens if the type of fibre, amount of swelling and rate of application have been correctly balanced. can also be used for the subsequent impregnation of nonwoven fabrics to impart greater resilience and firmness. Adequate wet pick-up and packing density are the prime requirements for a good impregnating effect. The resilience and resistance to laundering that may be achieved open up interesting new possibilities for such impregnated nonwoven products.

Impregnating bath properties

Impregnating baths normally will remain unchanged for at least 8 - 12 hours, provided the pH is kept at around 4 - 5. Higher pH values can cause premature changes in bath stability. Small amounts of pigment dispersions can be incorporated into the impregnating baths, if the emulsifier used in these dispersions is compatible with the formulation (nonionic).

Impregnation, drying, crosslinking

Formulations based on are designed for impregnation in the padder. The amount of impregnating agent squeezed out of the fabric can be adjusted in the usual manner. Impregnated fabrics are dried under tension, clamped to a frame, at temperatures of between 70 °C and 150 °C, depending on the thickness of the fabric. If the fabric is dried at temperatures of 100 °C or below, this should be followed by heating for at least 0.5 - 1 minute to around 140 °C-150 °C. If this hightemperature crosslinking is impracticable, the silicone will crosslink at room temperature within at least 24 hours. The state of advanced crosslinking can be recognised by the definite, resilient touch.

Substrates

The textiles used for impregnations should be washed or dry cleaned before treatment. Larger amounts of processing aids can affect the flexible silicone impregnation.

Resistance to laundering and dry cleaning

The touch and flexibility of fabrics impregnated with are totally unaffected by repeated domestic laundering at 40 °C (using detergents for delicate fabrics) and dry cleaning.

Packaging and storage

Packaging

WACKER® FINISH CT 208 E is available in 200 kg drum as well as 950 kg IBC.

Storage

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site http://www.wacker.com.

QR Code WACKER® FINISH CT 208 E

For technical, quality or product safety questions, please contact:

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