

“Chemical Guide To Your Processes”

SILICONE SOFTENERS



CONTENTS

- Field of application for textile
- Silicone modifications and chemical compositions
- Our products
- Key points for selection silicones

FIELDS OF APPLICATION FOR TEXTILES

- Anti-foaming agents
- Water repellent agents
- Technical coating agents
- Softeners
- Sewing thread lubricants

WHAT EFFECTS DOES SILICONE SOFTENER OFFERS?

softening

sewability

smoothness

wash durability

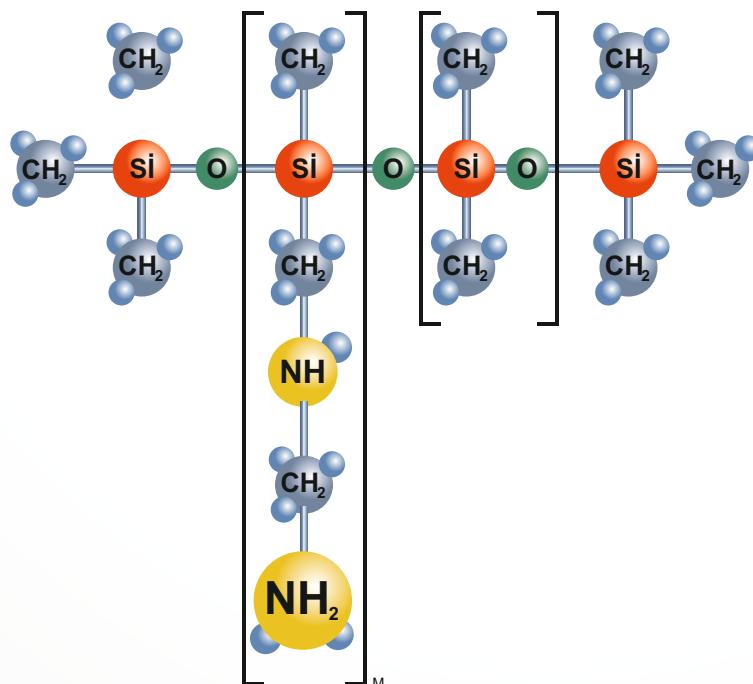
shining effects

water repellency

elasticity

hydrophilic properties

SILICONE STRUCTURE AND AMINO FUNCTIONALITY

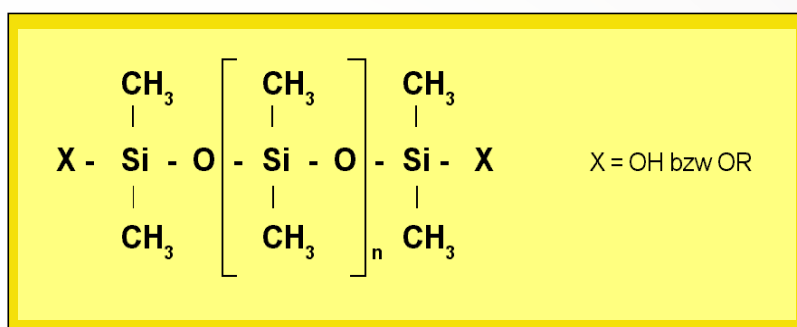


ADVANTAGES

- Soft bulky handle
- Durable to washes
- Surface smoothness
- Elasticity and elastic recovery
- Sewability
- Optimized effect/price performance

REACTIVE SILICONES AND PROPERTIES

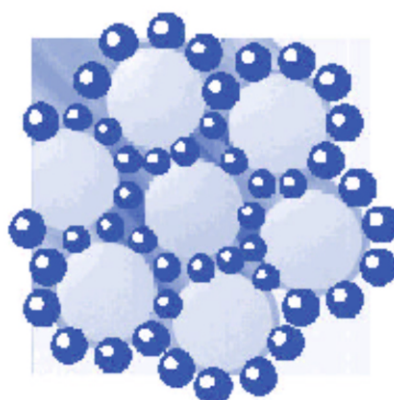
- Elasticity
- Drape and bulky
- Softness
- Surface smoothness
- Sewability
- Highly wash durability



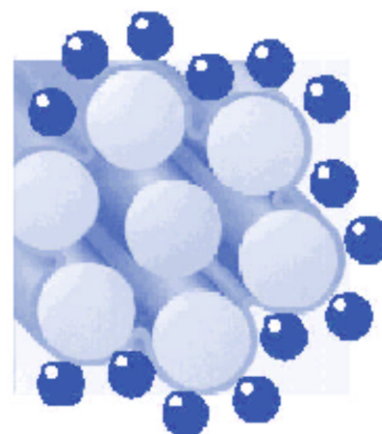
MACRO-, MINI- AND MICRO EMULSIONS



**microemulsion,
transparent**



**miniemulsion,
translucent**



**macroemulsion,
milky**

MICRO SILICONES

- Due to small particle size, confers inner softness
- Excellent softness and smoothness
- Better running stability
- Elasticity and elastic recovery
- Improving sewability performance

MACRO SILICONES

- Higher particle size
- More bulky and surface smoothness
- Elasticity and elastic recovery
- More suitable to PES fabrics due to optimized emulsifier inside
- More sensitive to alkaline conditions

OUR PRODUCTS

NANOSIL SBL new

Concentrated micro silicone product for pad applications.
Confers a very soft silky superior handle
Improves elasticity and elastic recovery
Improves sewability

NANOSIL MAC 70

Concentrated macro silicone product for pad applications
Soft bulky and smooth handle and lustre
Imparts colour intensifying properties
Improves the sewability

OUR PRODUCTS

NANOSIL MWS

Concentrated silicone product for pad applications.
Confers a very soft silky superior drape handle
Improves elasticity and elastic recovery
Improves sewability
Good running stability

NANOSIL F5

Price optimized micro silicone softener for pad applications.
Confers soft and smooth handle
Improves sewability

HYDROPHILIC PRODUCTS

NANOSIL MLC new

- Specially developed macro hydrophilic silicone
- Due to high molecular structure confers softness bulky drape and smooth handle.
- Especially suitable to physical treatment processing like Biancalani..
- Better running stability
- Very good yellowing behaviours- thermal and phenolic
- Improves elasticity and elastic recovery even it is hydrophilic

HYDROPHILIC PRODUCTS

NANOSIL EVN

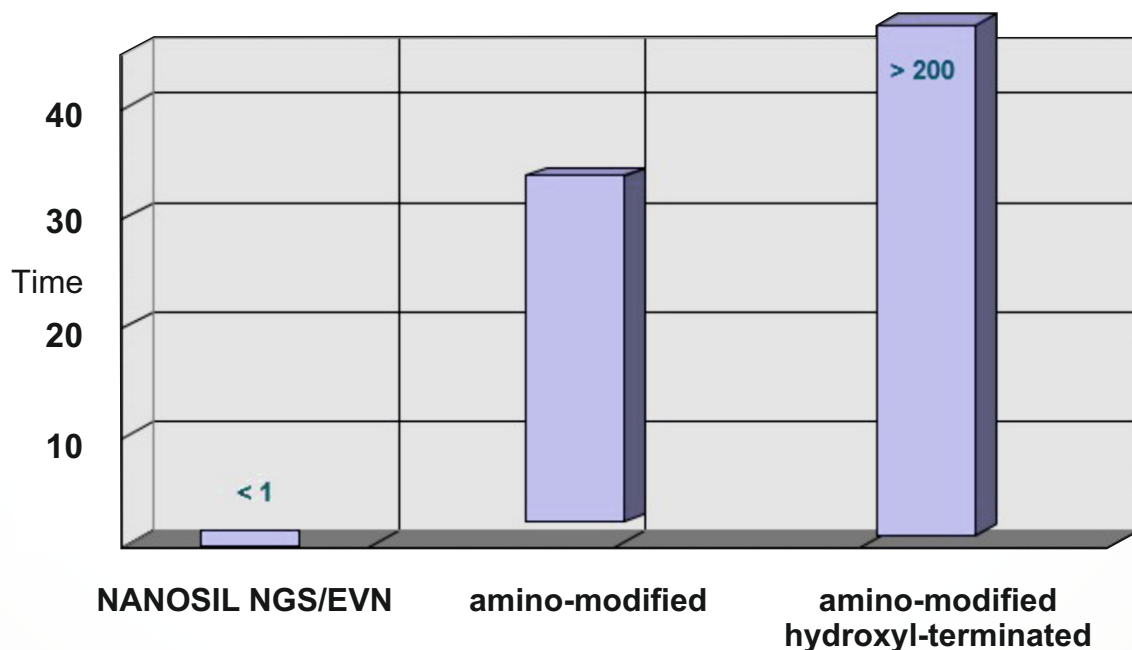
- Hydrophilic silicone softener
- Soft, smooth and bulky handle
- Suitable to exhaust methods
- Excellent process stability for pad application
- Very good yellowing behaviours- suitable to pigment printed pieces
- Easily removed and easier to reprocessing

HYDROPHILIC PRODUCTS

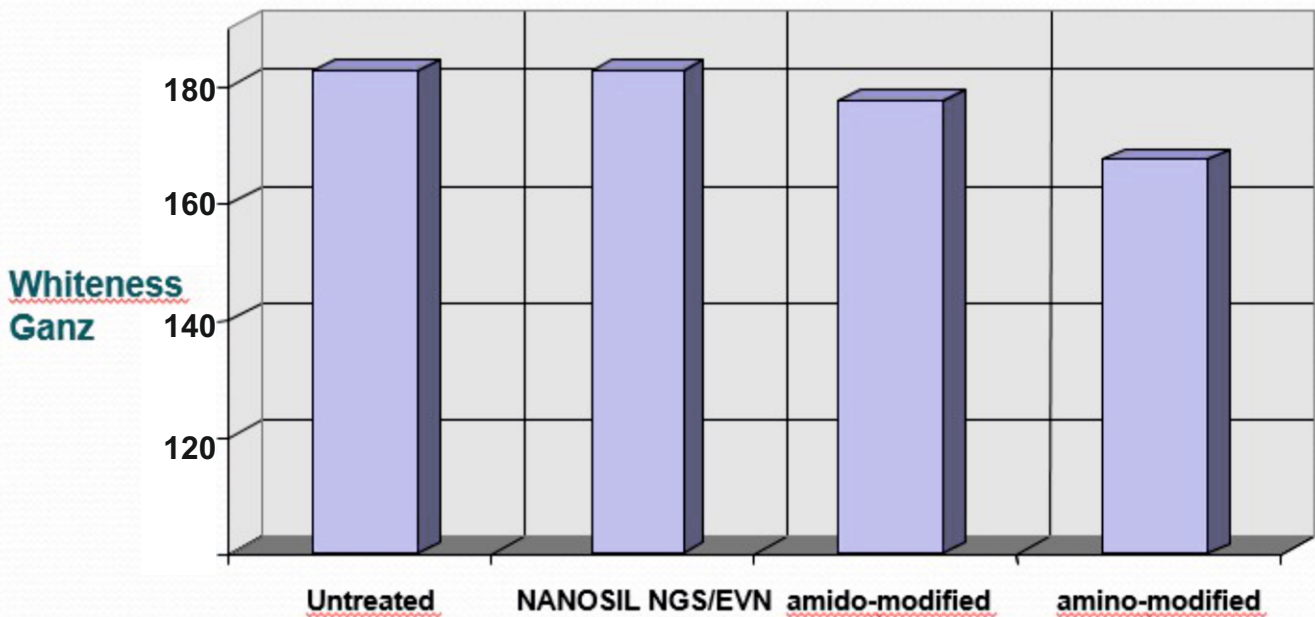
NANOSIL NGS

- Hydrophilic silicone softener especially suitable for terry towels
- Soft, bulky and smooth handle
- Suitable to exhaust methods, especially to jets
- Excellent running stability
- Very good yellowing behaviours also phenolic yellowing for white goods
- Suitable for piece printings
- Can be easily removed and better reprocessing

HYDROPHILIC PROPERTIES ACC. TO TEGEWA TEST



RESISTANT TO YELLOWING



**Highly yellowing behaviours
(test 170 °C, 1 min.)**

ADVANTAGES OF NANOSIL HYDROPHILIC SILICONES

- Very soft handle
- Very good hydrophilic behaviours
- Better sanforizing properties
- Very good yellowing behaviours- thermal and phenolic
- Good wash durability
- Very good pH stability
- Suitable for exhaust and very good shear stability

APPLICATIONS OF SILICONE

- Padding
- Exhaust (jets, overflow, yarns ...) - especially developed silicones and compounds
- Foam application
- Printing
- Weko Spray

KEY POINTS DURING PROCESSING

- pH of liquor
- pH of fabric
- Preparation tank has to be clean
- Cold water has to be used
- No heating and vapour not used
- Fabric temperature has to be low
- Ambient temperature
- Small fabric piles
- Impurities from fabric

MOLCEM NANO

CHEMICALS

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