

WACKER® MQ 803 TF

SILICONE RESIN POWDER

Product description

WACKER® MQ 803 TF is a co-hydrolysis product of tetraalkoxy silane (Q unit) and trimethyl-ethoxy silane (M unit). The chemical structure of WACKER® MQ 803 TF can be seen as a three dimensional network of polysilicic acid units which are endblocked with trimethylsilyl groups. Some residual ethoxy and hydroxy functions are present. The average molecular weight can be exactly controlled by the ratio of M and Q units. This ratio approx. is 0.67 for WACKER® MQ 803 TF.

WACKER® MQ 803 TF is a pure white powder manufactured substantially free of volatile impurities. It therefore only contains traces of aliphatic hydrocarbons. According to its low content of fine dust particles and its uniform spherical particle shape, WACKER® MQ 803 TF exhibits excellent rheological properties (flowability). Therefore, common powder processing techniques like bottling, conveying, and metering are simplified.

WACKER® MQ 803 TF can be compounded with polydimethylsiloxanes or dissolved in appropriate solvents like aromatic and non-aromatic hydrocarbons or lower alcohols. The solubility of WACKER® MQ 803 TF is excellent.

Application

In technical applications, WACKER® MQ 803 TF can be used as a basic material for foam stabilizing agents.

For polishes, WACKER® MQ 803 TF is an excellent additive to enhance the water repellent properties of automotive and domestic care systems.

In compositions, WACKER® MQ 803 TF acts as an extremely efficient and most compatible release active for plastics processing. Especially for PUR processing, it can be used to formulate release concentrates, high-solids, and solvent based anti-stick agents which exhibit excellent release characteristics and do not cause build-up on the mould or any disorders on the surface of moulded articles. Bondability and paintability of the moulded articles mainly depend on the release agent composition and the paint or bonding system

applied, and have to be tested in any individual case.

Compatibility

WACKER® MQ 803 TF

WACKER® AK silicone fluids, low-visc.	X
WACKER® Z silicone fluids	X
Mineral oil, low-visc.	Δ
Mineral oil, high-visc.	Δ
Castor oil	Δ
Paraffin wax 52/54°	Δ
PE - wax	Δ
Amide wax	Δ
WACKER® W 23	Δ
Isopropyl alcohol	X
Ethyl alcohol	X
Water	Δ
Glycerine	Δ
Propylene glycol	Δ
Ethyl acetate	X
C9-13 Isoparaffin	X

X = soluble (> 10 %)

Δ = insoluble

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>.

Product data

Typical general characteristics	Inspection Method	Value
Appearance (of a 50 % solution in toluene)		colorless, clear
Viscosity (of a 50 % solution in toluene)		approx. 4,0 mm ² s ⁻¹
Content HCl (of a 50 % solution in toluene)		≤ 10 ppm
Bulk density	DIN EN ISO 60	250 kg/m ³
Average particle size		approx. 10 µm
OH content		≤ 0,30 %

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

The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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

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