WACKER® CATALYST EP

RELEASE COATINGS

Product description

WACKER® CATALYST EP is a highly-active platinum complex used for the thermal curing of addition-crosslinking, solvent-based and solventless silicones.

Special features

- Very high and constant catalyst activity
- Rapid curing of addition-crosslinking silicone systems
- Miscible with silicones in all proportions
- Solventless
- Halogen-free, non-corrosive
- Apart from platinum, WACKER® CATALYST EP does not contain any heavy metals

Application

WACKER® CATALYST EP is dissolved in a reactive silicone polymer, which is incorporated into the cured rubber during the curing process. Combined with DEHESIVE® silicone polymers, it is excellently suited for providing various substrates, such as paper and films with a silicone coating that exhibits release properties towards tacky products used in technical, health, hygiene and food sectors.

Processing

WACKER® CATALYST EP must be added to the mixture of DEHESIVE®, CRA® modifier and Crosslinker. During addition, stirring should be as rapid as possible so as to avoid local over-concentrations of the platinum catalyst, which cause premature curing indicated by formation of gel particles ranging in color from brown to black. It is also important that the platinum catalyst always be added as the last component to the homogeneous mixture of polymer and Crosslinker.

Suitable materials for mixing vessels, stirrers, pumps, tubes, filters, etc. are stainless steel, polyethylene, polypropylene, Teflon and other fluorine polymers, as well as products coated or lined with these materials. If good catalyst activity is to be maintained, it is essential to avoid deactivation of the platinum catalyst. This may occur as a result of contact with the abovementioned equipment, with the ambient air, with unsuitable rolls in the coating equipment, with the customer's additives, or even with the substrate to be coated. If heavy metals (e.g. lead, copper, zinc, iron, chromium or tin) or sulfurous, nitrogenous or phosphorous organic compounds are present in any of the above materials, curing may be impaired or even prevented.

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.

Prolonged exposure to air and light, especially UV light, may result in an increased brown discoloration due to partial decomposition of the catalysts, or development of turbidity, or even in a black discoloration as a result of platinum precipitation. Since the colloidal platinum formed is also catalytically active, it is safe to assume that a brown discoloration and slight turbidity will not have a detrimental effect on the performance of the product. However, a black discoloration or a metallic platinum precipitate at the base of the container invariably indicate a loss in activity. This should be compensated for with longer curing times or higher temperatures.

Additional information

Platinum catalysts react vigorously with proton donors. Undiluted catalysts should therefore not come into direct contact with siloxane Crosslinkers, since this may cause a spontaneous, uncontrolled liberation of hydrogen. Especially in the presence of reactive organic solvents (e.g. esters and ketones) and flammable materials with a large surface area (e.g. paper), spontaneous ignition may then occur.

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		clear to slightly turbid, oily liquid
Color		colorless to yellowish
Odor		olefin-like
Viscosity, dynamic		approx. 800 mPa.s
Platinum content		1,00 %
Density at 20 °C	DIN 51757	0,98 g/cm³
Flash point	ISO 2719	62 °C
Ignition temperature (liquids)	DIN 51794	400 °C

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

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

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