HUNTSMAN

Heavy Electrical

Ancillary Products

Mould Release Agents
QZ 13
QZ 14 Spray

Applications

The pre-treatment of moulds and models in order to ensure trouble-free de-moulding of cold or hot cured ®Araldite epoxy resin castings, mouldings or laminates.

Method of application

Mould Release Agent QZ 13:
brush, rag , spray gun or vaporiser
Mould Release Agent QZ 14 Spray:
direct from aerosol can

Properties

Optimum release effects
Economical
Only slight soiling of mould
Allows smooth de-moulding even at mould temperatures above 150°C (automatic pressure gelation process)
Enables precise reproduction of surface detail
Short drying times
Does not corrode ®Araldite epoxy or metal moulds
QZ 14 Spray is basicaly similar to on QZ 13. The spray is environmentally friendly concerning ozone depletion.

Handling precautions

Mould Release Agent QZ 13 and QZ 14 Spray contain flammable solvents.
The usual fire precautions should be taken whenever it is stored or handled

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Mould Release Agent QZ 13

A low-viscosity, solvent-containing silicone oil

Viscosity	at 20°C	mPa s	~ 4
Specific gravity	at 20°C	g/cm^3	~ 0.86
Flash point	DIN 53213	°C	> 25
Solvent content		%	70 ± 2.00
Vapour pressure	at 20°C	mbar	~33

Mould Release Agent QZ 14 Spray

Active agent (silicone oil) with propellant and solvent

Specific gravity	at 20°C	g/cm^3	~ 0.79
Flash point	DIN 53213	°C	> 25

As supplied form	liquids, in cans or aerosol cans
Storage life in sealed can at 18 - 25 °C	see expire date on original container (12 months)
Hazardous decomposition	when disposed of in fire, carbon monoxide and carbon dioxide
Disposal	regular procedures approved by national and/or local authorities
Industrial hygiene	consult “Safety Data Sheet” of product

Processing

General

Mould Release Agent QZ 13 allows trouble-free de-moulding of epoxy resin castings, mouldings and laminates. A brush, rag, spray gun or vaporizer is used to apply the thinnest possible layer to the surface of moulds or models. Aerosol can application of a fine, homogeneous coating is particularly economical.

A single application of Mould Release Agent QZ 13 suffices to allow ready de-moulding of several cold or hot curing Araldite epoxy castings. Nevertheless, we recommend applying of a fresh layer after each de-moulding operation.

Detailed information on the applications and processing of Araldite casting and impregnating resin systems as well as Araldite epoxy resin systems for tooling is given in the Instruction Sheets covering the various products, as well as in a special series of " Applications for Araldite ", available on request.

Treatment of non-porous mould materials

Mould Release Agent QZ 13 should be applied as a very thin layer to the preheated surfaces of steel or aluminium alloy moulds. Dilution is one way of simplifying this operation.

Thin layers offer several advantages:

- precise reproduction of surface details
- glossy casting surfaces when polished moulds are used
- better results at lower release agent cost
- non corrosion of mould or model surfaces by vaporized solvent
  slight or only very gradual soiling of moulds due to build-up of release agent residues

Mould Release Agent QZ 13 has been found to give satisfactory results at mould temperatures ranging from 20°C to 180°C, and when using the pressure gelation technique.

Treatment of porous mould materials

A thin two-layer release agent coating has been shown to give the best results when working with moulds made of slightly porous and slightly uneven materials such as cast aluminium. Accepted practice is to apply Mould Release Agent QZ 13 to a priming layer of silicone varnish [1)] which has been stowed for 3 hours at about 200°C. One application of silicone primer will suffice for the manufacture of several hundred castings or mouldings, provided it is not damaged. A scratched silicone primer should be painted over and restored. The layer of Mould Release Agent QZ 13 should be renewed after each cycle.

1) A list of suitable commercial products will be supplied on request

Industrial hygiene

Direct skin contact with Mould Release Agent QZ 13 should be avoided. It contains solvents which extract the natural oils from skin and make it more vulnerable to irritation and sensitisation by various substances including some epoxy resins and hardeners. Mandatory and recommended industrial hygiene procedures should be followed whenever our products are being handled and processed. For additional information please consult the corresponding Safety Data Sheets and the brochure "Hygienic precautions for handling plastics products".

Handling precautions

Safety precautions at workplace:	
protective clothing	yes
gloves	essential
arm protectors	recommended when skin contact likely
goggles/safety glasses	yes
respirator/dust mask	recommended
Skin protection	
before starting work	Apply barrier cream to exposed skin
after washing	Apply barrier or nourishing cream
Cleansing of contaminated skin	Dab off with absorbent paper, wash with warm water and alkali-free soap, then dry with disposable towels. Do not use solvents
Clean shop requirements	Cover workbenches, etc. with light coloured paper Use disposable breakers, etc.
Disposal of spillage	Soak up with sawdust or cotton waste and deposit in plastic-lined bin
Ventilation:	
of workshop	Renew air 3 to 5 times an hour
of workplace	Exhaust fans. Operatives should avoid inhaling vapours.

First Aid

Contamination of the **eyes** by resin, hardener, casting mix or release agent should be treated immediately by flushing with clean, running water for 10 to 15 minutes. A doctor should then be consulted.

Material smeared or splashed on the **skin** should be dabbed off, and the contaminated area then washed and treated with a cleansing cream (see above). A doctor should be consulted in the event of severe irritation or burns. Contaminated clothing should be changed immediately.

Anyone taken ill after **inhaling** vapours should be moved out of doors immediately. In all cases of doubt call for medical assistance.

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