



TECHNICAL DATA SHEET

Description

RESIN PR92-98 is a Polyethylphenylsiloxane Resin supplied in 50 % solution in Toluene
RESIN PR92-98X is supplied in solution in Xylene.

Properties

- * Excellent heat stability
- * Good resistance to natural ageing (by oxygen, ozone, water and light)
- * Very good release properties
- Chemically inert

Fields Of Application

- * Non-stick lining for baking tins and dishes for bread, cakes, pate, ham etc....
- Coatings for toasters, grills, waffle-irons, etc.....

Typical Properties *RESIN PR92-98 & PR92-98X*

Appearance	Clear to almost clear liquid	
Colour	Colourless to slightly yellow	
Solids content, % approx	50	
Specific gravity at 25°C approx	1.02	
Viscosity at 25o ^C , mm ² /sec	40 to 60	40 to 70
Solvent	Toluene	Xylene
Flash point (closed cup), °C approx	4	24
Thinners	aromatic and chlorinated hydrocarbons, esters, ketones and ethers (1)	

Processing

Certain precautions must be taken to ensure a satisfactory release coating.

1. Preparation of surfaces

The materials treated are generally ordinary or stainless steel, aluminium or light alloys.

* For new material, the most satisfactory method is to disagree the metal with trichlorethane, trichlorethylene or perchlorthylene (by dipping or in vapour phase), followed if possible by careful sandblasting.

* For material for reconditioning, the silicone coating can usually be removed by soaking in trichloroethylene for about 30 minutes.

For difficult cases, treat with an alkaline detergent.

2. Applying silicone resins

RESINS PR92-98 and PR92-98X can be used as supplied or diluted with Xylene or glycol ethers. The latter improve the tension of the film. Users must make sure that the recommended thinners are permitted by law in the country concerned.

The release property and heat stability of these resins can be improved by slight pigmentation with aluminium paste by adding OIL 747 V 300.

Maximum non-stick properties are obtained when the film is perfectly even. Application with a spray gun is therefore strongly recommended.

The coating should be cured in batches in stoves with forced ventilation and protected resistors.

The articles treated are air-dried for thirty minutes, loaded onto the cold stove and then subjected to the following:

- * Heating up to 200°C in 30 minutes
- * 200°C held for 30 minutes
- * Heating up to 300°C in 30 minutes (or direct transfer to stove at 300°C)
- * Final curing at 300°C for 2 hours.

The purpose of the gradual heating is to avoid the risk of bubbles in the coating. The curing time at 300°C ensures maximum non-stick properties.

The coating is slightly thermoplastic after curing and certain precautions are recommended when handling hot articles - be careful not to scratch the coating, and do not stack the articles until they have cooled. For these reasons, they are often unloaded after the stove has cooled.

The addition of a catalyst such as iron octoate can reduce thermoplasticity in the same

conditions of curing.

The product obtained after cross linking of RESINS PR92-98 and PR92-98X contains only substances permitted by the regulations currently in force in the following countries:

FRANCE: Journal Official: arrete du 25 November 1992.
GERMANY: Bundesgesundheitsamt recommendations. BGA chapter XV A on silicones.
USA; FDA: - Code of Federal Regulations, Part 21, paragraph 175300 on resinous and polymeric coatings.

Important Remarks

All the constituents of the lining must be authorised i.e. they must appear in the positive lists of materials for contact with foodstuffs. In addition, the finished lining, after application and curing, must pass migration tests in the conditions stipulated by the regulations.

Moreover, manufacturers of paints, varnishes or coatings must naturally make sure that the other constituents in their formulas (solvents, pigments, additives, etc.) also comply with the regulations. They must also check that the coating obtained have been correctly applied, in particular to avoid any risk of migration of constituents.

Packaging

RESIN PR92-98 is normally supplied in 25 and 200 Kg drums.
RESIN PR92-98 X is supplied in 200 Kg drums.

Storage And Shelf life

RESIN PR92-98 and PR92-98 X can be kept for 18 months at a maximum temperature of 30°C, in the original unopened containers. They are flammable and must be stored away from the risk of fire.

Safety

Consult the safety data sheet of RESINS PR92-98 and PR92-98 X.