Material Data Sheet



Product Description

moglice is a mouldable low friction wayliner to produce highprecision slideways with anti-stick-slip-properties. The moulding-method allows to create complex forms and structures down to the micron without mechanical machining. It helps to reduce production times in modern production engineering. The material can either be caused to stick to the moulding surface or to be released by the inclusion of a micro thin layer of release agent (DIAMANT separator liquid). The result is an exact replica of the tool surface even down to the finest surface texture. moglice is provided in a ready to mix package.

Typical Applications

- low friction slideways
- slideway repair coatings
- piston bore castings
- complex replicated running surfaces (eg. lead screws)

Properties

- durable machine surface with anti-stick-slip- and wearresistant qualities with best coefficient of friction
- minuscule shrinkage or loss of dimensional stability
- micro fine surface moulding capability
- resistant to movement after curing
- the accuracy achieved can be down to a micron depending upon the setup
- minimal humidity absorption
- full contact of mating surfaces and therefore good load transmittal
- high load carrying capacity, high damping properties
- good adhesion with zero ageing or weathering
- resistant to many chemicals
- works effectively with selected lubricating oils (polarised oils)

Mouldable Low Friction Slideway Systems

Preparation

Roughen adhesion areas down to a roughness of 0,3 - 0,5 mm and then clean chemically (optimum: DIAMANT cleaner). Make sure that the working temperature is in the acceptable range of 20°C+/-10°C.

Pour the hardener liquid (comp. B) fully into the resin (comp. A) container. Mix manually by spatula or by machine (100 rpm for 2 min.) until the hardener liquid is mixed well with the resin. Ensure that material adhering to the side walls and the bottom is well incorporated.

Degas

- Paste: by spreading it crosswise and thinly onto a clean surface to remove air bubbles.
- Fluid: by pouring the mix in a long, thin, uninterrupted stream into a cartridge or the confined gap.

Application

moglice may be

- poured into a prepared and sealed gap under gravity feed.
- spread in its paste form into a prepared cavity into which a replication tool or component is lowered and located in position.
- injected into a prepared gap using a hand pump cartridge.

Apply a thin adhesion layer and push it into the surface using a spatula. Add the remainder rooflike taking care not to trap air.

Pour **moglice** in the prepared cavity slowly in a long, thin stream. Aim at the lowest point to fill from the bottom to avoid the entrapment of air, or pump the liquid in from the bottom of the prepared gap into a prepared inlet port using a hand pump cartridge. To achieve coverage on larger components a number of inlet ports may have to be established. Ensure that the application is made safely within the pot lifetime.

Machining centre for auto-motive components in the UK. All of its linear guides as well as the ram bores were replicated using moglice. Almost all injections were carried out in one operation. No machining, no specialized tools necessary.





Product Range

moglice P #1130 putty moglice FL/P #0311 liquid / pour or inject

moglice P500 #0296 for injection

Shelf Life mind. 12 Month

Package Size

twin pack:

100g / 250g / 500g / 1.000g other sizes on request

Accessories & Services

DIAMANT separator #1354, liquid DIAMANT safety cleaner #1417

injection equipment:

- screw-in nipple R1/4, #1578
- -hose clamp, #1578
- -flexible Phose, #1579
- -shut-off valve, #1577
- -cartridges 300ml, #1573

We also offer a comprehensive and experienced product / process design service to optimise its use in special applications. Our technicians like to advise you in all questions around moulding methods.





Material Data Sheet



Mouldable Low Friction Slideway Systems

| | P #1130 | FL/P #0311 | P500 #0296 |
|-------------------------------------------------------------------|----------------------------------------------|-----------------------|-----------------------|
| | paste-like | pour / inject | inject |
| Pot Life (+20°C) [min] | 50 | 50 | 50 |
| Cure Time (+20°C) [h] | 18 | 18 | 18 |
| E-Modulus DIN 53457 [N/mm²] | 10400 | 9100 | 9500 |
| Compressive Strength [N/mm²] | 120 | 105 | 110 |
| Hardness [Shore D] | 88 | 86 | 87 |
| Surface Pressure [N/mm²] | 12,5 | 14,5 | 14,5 |
| [Psi] | 1813 | 2103 | 2103 |
| Adhesion [N/mm²] | 15,5 | 16,5 | 16 |
| [Psi] | 2248 | 2393 | 2320 |
| Bending Strength [N/mm²] | 66 | 98 | 90 |
| Thermal Conductivity [W/mK] | 0,833 | 1,097 | 1,092 |
| Coefficient of Thermal Expansion [K¹] | 30,3 x 10 ⁻⁶ | 50 x 10 ⁻⁶ | 45 x 10 ⁻⁶ |
| Shrinkage at Cure | hardly measurable / compensates using risers | | |
| Temperature permanent -20°C to Resistance [°C] temporary -40°C to | +60°C +125°C | +60°C +125°C | +60°C +125°C |
| Viscosity (+20°C) [mPas] | paste-like | > 25000 | > 75000 |
| Mixing Ratio [A : B] | 91,5 : 8,5 | 84,6 : 15,4 | 88,2 : 11,8 |
| Specific Weight [g/cm³] | 1,7 | 1,6 | 1,6 |

All material values are average values and vary due to mixing ratio, material quantity and environmental conditions. The mentioned material values are based on normal conditions (STP) of 20°C (273K / 31,73°F) and 1013mbar (1013hPa).

moulding of a hydrostatic tooth rack without machining

















P500



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