5 Axis CNC Centre
Machining centre for automotive 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.

Mouldable Low Friction Slideway Systems

Preparation
Roughen adhesion areas down to a roughness of 0.3 - 0.5 mm and then clean chemically (optional: DIAMANT cleaner). Make sure that the working temperature is in the acceptable range of 20°C +/- 10°C.

Mixing
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.

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

Fluid
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.

Properties
- Durable machine surface with anti-stick-slip- and wear-resistant 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 transmission
- 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)

Material Selection Criteria
moglice is a polymer system with finest slideway materials and consists of the two components resin (comp. A) and hardener (comp. B), supplied in the correct quantities and ready to mix. No weighing or measuring necessary. Choice is dependent on: application method, precision requirements, friction characteristics.

Range
moglice P #1130 Paste-like
moglice FL/P #0311 Liquid / pour or inject for injection
moglice 1000 Inj #3273

Shelf Life
12 month

Pack Sizes
- Twin pack: 100g / 250g / 500g / 1.000g
- Bulk packs on request

Accessories & Services
- Separator liquid
- Safety cleaner
- Injection equipment:
  - Injection pipe
  - Unidirectional valves
  - Hand injection gun
  - Cartridges

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.

The Indo-German Metallplastic Company
### Material Data Sheet

#### Mouldable Low Friction Slideway Systems

<table>
<thead>
<tr>
<th></th>
<th>P #1130</th>
<th>FSP #0311</th>
<th>1000 Inj</th>
<th>#1273</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paste-like</strong></td>
<td>50</td>
<td>50</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td><strong>Pour / Inject</strong></td>
<td>18</td>
<td>18</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td><strong>E-Modulus DIN 53457 [N/mm²]</strong></td>
<td>10400</td>
<td>9100</td>
<td>9500</td>
<td>110</td>
</tr>
<tr>
<td><strong>Compressive Strength [N/mm²]</strong></td>
<td>120</td>
<td>105</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td><strong>Hardness [Shore D]</strong></td>
<td>88</td>
<td>86</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td><strong>Surface Pressure [N/mm²]</strong></td>
<td>12.5</td>
<td>14.5</td>
<td>14.5</td>
<td></td>
</tr>
<tr>
<td><strong>[Psi]</strong></td>
<td>1813</td>
<td>2103</td>
<td>2103</td>
<td></td>
</tr>
<tr>
<td><strong>Adhesion [N/mm²]</strong></td>
<td>15.5</td>
<td>16.5</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td><strong>[Psi]</strong></td>
<td>2248</td>
<td>2393</td>
<td>2320</td>
<td></td>
</tr>
<tr>
<td><strong>Bending Strength [N/mm²]</strong></td>
<td>66</td>
<td>98</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td><strong>Thermal Conductivity [W/mK]</strong></td>
<td>0.833</td>
<td>1.097</td>
<td>1.092</td>
<td></td>
</tr>
<tr>
<td><strong>Coefficient of Thermal Expansion [K⁻¹]</strong></td>
<td>30 x 10⁻⁴</td>
<td>50 x 10⁻⁴</td>
<td>45 x 10⁻⁴</td>
<td></td>
</tr>
<tr>
<td><strong>Shrinkage at Cure</strong></td>
<td>hardly measurable / compensates using risers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>permanent -20°C to temporary -40°C to</td>
<td>+60°C</td>
<td>+60°C</td>
<td>+60°C</td>
</tr>
<tr>
<td><strong>Resistance [°C]</strong></td>
<td>+125°C</td>
<td>+125°C</td>
<td>+125°C</td>
<td></td>
</tr>
<tr>
<td><strong>Viscosity [+20°C] [mPas]</strong></td>
<td>paste-like</td>
<td>&gt; 25000</td>
<td>&gt; 75000</td>
<td></td>
</tr>
<tr>
<td><strong>Mixing Ratio [A : B]</strong></td>
<td>91.5 : 8.5</td>
<td>84.6 : 15.4</td>
<td>88.2 : 11.8</td>
<td></td>
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<tr>
<td><strong>Specific Weight [g/cm³]</strong></td>
<td>1.7</td>
<td>1.6</td>
<td>1.6</td>
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</tr>
</tbody>
</table>

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 / 81.73°F) and 1013mbar (1013hPa).

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**Moulding of a hydrostatic tooth rack without machining**

**Flat way injection with moglice**

**Moulding of flat ways by pouring**

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**The Indo-German Metallplastic Company**

**ISO 9001:2008 QUALITY SYSTEM**