SikaAxson
LOW PRESSURE RIM-SYSTEMS
INNOVATIVE SOLUTIONS FOR HIGH-CLASS PROTOTYPES AND SHORT RUNS
LOW PRESSURE RIM-SYSTEMS

INNOVATIVE SOLUTIONS FOR HIGH-CLASS PROTOTYPES AND SHORT RUNS

Biresin® RG53:
- Proven allrounder system with very easy processing
- Offers high impact resistance for housings with PE/PP aspect
- With US hardener for housings and coverings with good heat resistance

RIM 975 and RIM 976:
- Black RIM system for impact and heat resistant parts in the motor compartment

RIM 975 for parts with PP aspect, RIM 976 for stiffer parts with ABS aspect
- Both can be mixed to reach E-modulus in between 1,000 and 2,000 MPa

Biresin® RG53 FR and RG57 FR:
- Flame retardant RIM systems for stiff housings and coverings with ABS aspect and good heat resistance
- RG53 FR with UL94 V-0 offers longer potlife for bigger parts
- RG57 FR tested according to DIN EN 45545-2

LOW PRESSURE RIM-SYSTEMS

**Component** | **POLYOL A** | **ISOCYANATE B** | **Mixing ratio [g]** | **Colour** | **Characteristics** | **Applications** | **Potlife & Demoulding** | **Other Properties**
---|---|---|---|---|---|---|---|---
POLYOL A | RG53 | RG56 | RG53 Fibre | RIM 976 | RG53 FR | RG57 FR

* after appropriate treatment

LOW PRESSURE RIM-SYSTEMS

**Component** | **POLYOL A** | **ISOCYANATE B** | **Mixing ratio [g]** | **Colour** | **Characteristics** | **Applications** | **Potlife & Demoulding** | **Other Properties**
---|---|---|---|---|---|---|---|---

* after appropriate treatment
MOULD MAKING PRODUCTS

LAYER-CONSTRUCTION PROCESSES

### Gelcoats

- **GC1 080**
- **GC 11**
- **GC 13**

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</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>100</td>
<td>blue/white/green</td>
<td>glossy aspect; could be sanded and polished</td>
<td>12</td>
<td>3</td>
<td>0.78</td>
<td>0.73</td>
<td>43</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>100</td>
<td>blue/white</td>
<td>mechanically stable, high heat resistance</td>
<td>120</td>
<td>24</td>
<td>1.3</td>
<td>0.83</td>
<td>43</td>
<td>65</td>
<td>85</td>
<td></td>
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**Systems for direct casting of moulds dedicated to series production**

- **Epopast 400**
- **F 50 Polyol**
- **F 50 Isocyanate**

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<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>100</td>
<td>very low shrinkage, low exothermic reaction</td>
<td>30-50</td>
<td>1.73</td>
<td>85</td>
<td>70</td>
<td>112*</td>
<td>&gt;130*</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>100</td>
<td>very low shrinkage, low viscosity even filled</td>
<td>12-14</td>
<td>1.3</td>
<td>85</td>
<td>70</td>
<td>112*</td>
<td>&gt;130*</td>
<td>-</td>
</tr>
</tbody>
</table>

**Component A**

- **GC1 080**

- **GC 11**

**Component B**

- **GC 13**

**Mixing ratio [g]**

- **A**
  - 100
  - 10

- **B**
  - 10
  - 14

**Colour**

- **blue/white/green**
- **blue/white**

**Characteristics**

- **glossy aspect; could be sanded and polished**
- **mechanically stable, high heat resistance**
- **very low shrinkage, low exothermic reaction**
- **very low shrinkage, low viscosity even filled**
- **good flowing and degassing properties**

**Potlife [min]**

- **12**
- **20**

**Demoulding time [h]**

- **3**
- **24**

**Density [g/cm³]**

- **0.78**
- **1.3**

**Shore hardness**

- **D 73**
- **D 83**

**Flexural strength [MPa]**

- **43**
- **100**

**Compressive strength [MPa]**

- **-**
- **-**

**HDT [°C]**

- **-**
- **-**

**TG [°C]**

- **85**
- **-**

**Direct Milling**

### Model Board

- **Prolab 75**

- **M945**

<table>
<thead>
<tr>
<th>Property</th>
<th>Prolab 75</th>
<th>M945</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density [g/cm³]</td>
<td>0.78</td>
<td>1.3</td>
</tr>
<tr>
<td>Colour</td>
<td>light grey</td>
<td>green</td>
</tr>
<tr>
<td>Characteristics</td>
<td>easily workable, fine, dense surface; good compressive strength; good heat distortion temperature</td>
<td>very abrasion resistant, excellent milling properties; very high strength</td>
</tr>
<tr>
<td>Shore hardness</td>
<td>0.73</td>
<td>0.83</td>
</tr>
<tr>
<td>Flexural strength [MPa]</td>
<td>43</td>
<td>100</td>
</tr>
<tr>
<td>CTE, α [1/K]</td>
<td>50 x 10⁻⁶</td>
<td>65 x 10⁻⁶</td>
</tr>
<tr>
<td>HDT [°C]</td>
<td>-</td>
<td>80</td>
</tr>
<tr>
<td>TG [°C]</td>
<td>85</td>
<td>-</td>
</tr>
</tbody>
</table>

**Tooling Board**

- **Mould Making Products**

**In addition with laminating resin for large tools**

**Systems for direct casting of moulds dedicated to series production**

**With milling of boards it is possible to achieve the complete tool (male and female pieces) or milling one part used as a model and produce the opposite half of the mould by layer construction process**
GLOBAL SOLUTIONS – LOCAL SERVICE

With over 60 years of experience, SikaAxson is the world leading provider and developer of high-performance resins, boards and pastes for model and mould making. SikaAxson offers customized solutions for the composites industry – from the model to the shape and finished parts up to the fitting structural adhesive. In addition, SikaAxson offers casting resins and functional coatings for industrial filters and dielectrics. SikaAxson generates an annual turnover of €130 million with 450 employees.

SikaAxson is part of Sika AG, which is headquartered in Baar, Switzerland. Sika has subsidiaries in 97 countries world-wide, with more than 170 manufacturing sites. It has approx. 17,000 employees, who generated an annual turnover of CHF 5.7 billion in 2016.