Vacuum impregnation for cast metal parts

Reliable Sealing Results through High-Quality Impregnation

Henkel is a world-leading supplier of impregnation products and services. With a comprehensive range of proven, innovative solutions for sealing porosities, shrinkage cavities and capillary pores in cast metal parts, we enable our customers to meet in full their process needs and the associated industry challenges.
The industry challenge
High-quality metal parts play a vital role in the automotive industry. The reliability and safety imperatives encountered by today’s vehicle manufacturers mean that all parts have to be fully sealed against fluids, gases and other external influences. The industry also finds itself under constant pressure to reduce costs, increase productivity and meet environmental regulations.

Our solutions
Henkel’s impregnation product solutions and services are designed to provide superior quality in sealing porosities and other defects in cast metal parts. Our response capability centers offer you a fast, high-quality response capability – either on site or close by your manufacturing facility. With an ever-expanding global presence at major OEMs and Tier 1 suppliers, Henkel is your ideal partner for solutions along the entire manufacturing value chain.

LOCTITE High-Performance Impregnation Products

<table>
<thead>
<tr>
<th>LIS</th>
<th>Chemical type</th>
<th>Cure method</th>
<th>Appearance</th>
<th>Viscosity 23°C, mPa.s</th>
<th>Chemical resistance</th>
<th>Temperature resistance</th>
<th>Resin recycling</th>
<th>Application area</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE IS 90R</td>
<td>Methacrylate</td>
<td>90°C</td>
<td>Clear, fluorescent</td>
<td>6 – 10</td>
<td>Excellent</td>
<td>-90°C to +200°C</td>
<td>Yes</td>
<td>Castings with typical porosity range</td>
</tr>
<tr>
<td>LOCTITE IS 88C</td>
<td>Methacrylate</td>
<td>90°C</td>
<td>Clear, fluorescent</td>
<td>8 – 10</td>
<td>Excellent</td>
<td>-90°C to +200°C</td>
<td>No</td>
<td>Castings with typical porosity range</td>
</tr>
<tr>
<td>LOCTITE IS 90C</td>
<td>Methacrylate</td>
<td>90°C</td>
<td>Clear, fluorescent</td>
<td>5 – 20</td>
<td>Excellent</td>
<td>-90°C to +177°C</td>
<td>No</td>
<td>Castings with typical porosity range</td>
</tr>
<tr>
<td>LOCTITE IS RTC</td>
<td>Methacrylate</td>
<td>Anaerobic</td>
<td>Clear, fluorescent</td>
<td>5 – 15</td>
<td>Excellent</td>
<td>-90°C to +204°C</td>
<td>No</td>
<td>Casting with macro porosities, powder metal</td>
</tr>
</tbody>
</table>

Process optimization
› Improved quality and better performance thanks to our best-in-class product portfolio and high-speed impregnation service on site or close by
› Exceptional sealing quality thanks to clean, operationally efficient facilities
› Individual validation testing and on-site service personnel ensure tailored product and service concepts

Cost reduction
› Lower overall costs through reducing scrappage caused by porosities and other structural defects

Sustainability
› Improved ecological footprint thanks to a recycling system to continuously recover impregnation resin from the wash water

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