

Technical Data Sheet

SG POXY 426

1. SG POXY 426

Two Part Epoxy System / Shore D 90 – 95 Hardness.

SG POXY 426 is an aluminium filled, two part epoxy casting system formulated for high temperature applications, such as vacuum forming tools. SG POXY 426 is formulated to have fast cure with minimal shrinkage, and is highly polishable. The low mixed viscosity ensures excellent detail reproduction. A slow hardener is available for very large or deep castings.

2. MIX RATIO

LOW VISCOSITY / EXCELLENT REPRODUCTION / EASILY POLISHABLE / LOW SHRINKAGE / FAST CURE

| | Material | Mix ratio by weight | Pot life (200g, 25°C) | Demould Time (200g, 25°C) | Linear Shrinkage % | Tensile Strength MPa | Elongation at break % | Flexural Strength MPa | Flexural Modulus MPa | Maximum Operating Temperature |
|------------------|--|---------------------|-----------------------|---------------------------|--------------------|----------------------|-----------------------|-----------------------|----------------------|-------------------------------|
| | Aluminium filled epoxy casting system. | | | | | | | | | |
| SG POXY 426 | Epoxy | 100A:6B | 2– 3 hours. | 12 hours. | 0.07 | 12.0 - 17.0 | 2.5 - 3.5 | 44.0 – 49.0 | 6300 – 6700 | 80 °C |
| SG POXY 426 SLOW | Epoxy | 100A:6B | 3– 4 hours. | 12 –24 hours. | 0.07 | 12.0 - 17.0 | 2.5 - 3.5 | 44.0 – 49.0 | 6300 – 6700 | 80 °C |

3. METHOD OF USE

Ensure that both SG POXY 426 A and SG POXY 426 B are between 15 – 25°C. Before use, mix ASG POXY 426 thoroughly in order to homogenise the fillers. Mould surfaces should be clean, dry and treated with Pol-Ease 2300, R5 or other suitable release agent. Porous materials should be well sealed. Polish if necessary, to obtain the desired surface finish. Where deep sections occur (more than 75 mm), we recommend coring out the mould using tapered wood cores with edges and corners rounded off and covered in tin foil and treated with release agent. Cores should be at no more than 13 cm centres and a minimum of 35 mm off working resin face. Cores must be removed after curing. Alternatively, Component B of 426 SLOW can be used.

4. MIXING INSTRUCTIONS

SG POXY 426 should be mixed with B 426 / 426 Slow according to the indicated mixing ratio. Both components should be thoroughly mixed, care should be taken to avoid air entrapment and make certain that material at bottom and sides of container is thoroughly stirred into centre. After thorough mixing, the material should be poured into the mould. To avoid air entrapment, pour the material slowly, and into one place in the mould. Mixing and pouring must be completed within the stated pot life. Where fine detail is to be reproduced, we advise that the mixed product is first brushed onto the surface using a stippling action. The remainder of the material can then be cast into the mould. **KEEP THE PACKING TIGHTLY SEALED WHEN NOT IN USE.**

5. CURING AND POST CURING

Demould times will vary with the thickness of casting, for example, thin sections may take 16 to 24 hours before they can be demoulded. Using SG POXY 426 will increase the demould time. To achieve full high temperature properties, a step wise post cure treatment is recommended. Allow the product to cure at room temperature for at least 24 hours, then heat to 40°C for 1 hour, followed by 60°C for 1 hour, followed by 80°C for 1 hour, followed by 100°C for 1 hour. To prevent any distortion during the post cure cycle, the unit should be fully supported during the process. When post-curing is complete, let the unit cool down slowly to room temperature, preferably in the oven. Sudden change in temperature can cause distortion or warping.

6. STORAGE

SG POXY 426 A and B should be stored in original, unopened containers between 15 and 25°C. **KEEP THE PACKING TIGHTLY SEALED WHEN NOT IN USE.** If stored under the above conditions, SG POXY 426 will have a shelf life of 12 months, from the date of production. You can reseal the products with Poly Purge.

Further Information: This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum. Our technical advice, whether verbal, or in writing is given in good faith, but without warranty – this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended process and use. Before using any of our products, users should familiarise themselves with the relevant TDS and MSDS provides by Schouten Group / Syntec.

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