Schouten Group
SynTec

TDS / ENG

SG 2000 (L)

Technical Data Sheet

1. DESCRIPTION

SG 2000 (L) High quality, vey thin liquid fast casting resin system. The SG-Serie products and especially SG 2000 (L) can be used for applications as: • Foundry patterns, Core boxes, Negatives, Pattern plates ,Control castings, Coping models, Vacuum forming tools, Mould probes for trimming of prototypes due to the material properties: unfilled, very low viscosity, high filler content possible, good curing, very high strength, very heat resistant. Color: Ivory, Set A+B.

2. PROCESSING INSTRUCTIONS

	MIXTURE A+B	RESIN PART A	RESIN PART B
SG 2000 (L)	Fast casting low viscosity polyurethane plastics		
Colour	IVORY	White	Light yellow
Mixing Ratio BY WEIGHT	1A : 1B	100	100
Mixing Ratio BY VOLUME	100 A : 89B	100	89
Viscosity at 25°C (mPas)	55 ± 5	85 ± 5	25 ± 5
Density at 20°C (g / cm3)	1,10 ± 0,02	1,02 ± 0,02	1,14 ± 0,02
Pot life 200 g / 20°C (min)	7 - 8	-	-
Curing time at RT (hrs.)	1 - 1,5	-	-

Stirr or shake well before use the both parts.
when you use fillers, the fillers should be stirred into the single components A and B, so that these have nearly the same viscosity. After that both components can be very well mixed. In case of small quantities and sufficient experience it is also possible to mix the unfilled components first and then to stir in the filler, without making the potlife too short for casting.

3. MOLD PREPARATION & MIXING AND CURING

These products reproduce minute detail from a mold or pattern but may stick or foam when poured on improperly prepared surfaces. A trial casting on a surface finish similar to the final mold should be made to avoid damaging a valuable mold. Polyethylene and silicone rubber molds (e.g., SG C-SIL /TinSil and Eurossil / PlatSil silicone rubber) do not require a release agent. When casting SG-Serie plastics product in silicone molds, the use of an appropriate primer sprayed in the mold and allowed to dry before casting, will result in a pre-primed cast part and will help additional paint adhere to the part. Latex, polyurethanerubber (e.g., 74-and 75-Series rubbers) or metal molds must be dry and require a coat of a suitable release agent (i.e., Release VL or Pol-Ease 2300 Release Agent).

All SG Serie Liquid Plastics have there own mixing ratio. Before use, be sure that Parts A and B are at room temperature and that all tools are ready. Surface and air temperatures should be above 15 °C / 60°F during application and for the entire curing period. Read product labels to determine if pre-mixing of Part A or Part B component is required. Use metal or plastic mixing vessels and spatulas to avoid introducing moisture (paper or wood tools can introduce moisture). Measure equal volumes of A and B into a mixing container such as a polyethylene pail. Mix immediately, thoroughly scraping sides and bottom for one minute. Pour mix into mold cavity as quickly as possible. Once the containers of Parts A and B are opened, they should be used or resealed tightly since atmospheric moisture contamination may cause foaming of the plastic. PolyPurge, a dry gas product, can be sprayed into opened containers of SG Series plastics to displace moistair before resealing containers to extend shelf life. The product SG 2000 consists of high-quality, nearly odourless two-component-Polyurethane casting resins without mixed in filler. The filler is stirred in when the components are mixed. There are different resin components available, which are processed with one hardener. The single types differ in potlife and curing time. We have different resins -with one hardener- available. The various types differ in potlife and curing time. The fast curing of the materials leads to a short demoulding time. The very thin binding agent effects a high filler content. The addition of different fillers determines the properties and strength. Material should be carefully stirred up/ shaked before use. The product can be subject to colour variations due to raw materials, but these colour variations have no influence on the quality and the properties of the product.

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4. THICKENING FOR BRUSH-ON

Add a thickner CAB-O-SIL to the mixed Parts A and B to thicken the liquid mix to a gel for application by brush or trowel.

5. CLEAN UP

Wipe tools clean before the resin cures. Denatured ethanol is a good cleaning solvent, but is highly flammable and must be handled with caution. Coat work surfaces with wax, Pol-Ease 2300 Release Agent or PolyCoat so that cured rubber can be easily removed.

6. PHYSICAL PROPERTIES

	Inspect. requirem	Unit	Value
SG 2000 (L)	High quality, vey thin liquid fast casting resin system		
Flexural strength	EN ISO 178	MPa	57 ± 5
Flexural elongation at break	EN ISO 178	%	7,1 ± 0,4
Flexural modulus	EN ISO 178	MPa	1500 ± 100
Impact resistance (Charpy)	EN ISO 179	kJ/m2	17 ± 4
Compressive strength	EN ISO 604	MPa	45 ± 5
Heat resistance (HDT)	DIN EN ISO 75 B	°C	20 min.
Shore hardness	DIN ISO 7619-1	Shore D	72 ± 2
Coefficient of linear expansion	DIN 53752	10-6K-1 -	-

7. SAFETY

Before use, read product labels and Safety Data Sheets. Follow safety precautions and directions. Use only with adequate ventilation. Contact with uncured products may cause eye, skin and respiratory irritation, and dermal and/or respiratory sensitization. Avoid contact with skin and eyes. If skin contact occurs, remove with waterless hand cleaner or alcohol, and then soap and water. In case of eye contact, flush with water for 15 minutes and call a physician. SG Serie products are not to be used where food or body contact may occur.

8. SHELF LIFE

Storage at room temperature 18-25 °C. Opened containers should be closed immediately after use and should be used up as soon as possible and use Poly-Purge. Shelf life is indicated on the labels.

9. WASTE DISPOSAL

According to arrangement with local authorities cured material can be disposed as domestic or commercial waste. Non-cured products are waste which is subject to inspection and has to be disposed accordingly. In case of further questions please do not hesitate to contact our Department for Product Safety

10. DISCLAIMER

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