PT Flex 97 Flexible Polyurethane
Polytek's polyurethane casting resin is of high quality.
This is a 2 component polyurethane that cures quickly to a very strong rubber. This polyurethane rubber has a high wear resistance and strength. This variant is perfect for casting decorative pieces, production parts, tools etc.
The slightly bright yellow/amber color makes this polyurethane easy to color with polyurethane dyes.

Processing
This PU can be processed manually and is also very suitable for dosing syringes/dispensers .
The model or mold in which PT Flex 97 is processed may not be porous and contain no sulphur. So be careful with (dried) clay, etc. If the model is porous or contains sulfur, it is best to seal it with shellac or another well-sealing sealer. If the product is only porous, PVA or ordinary lacquers will suffice.
After applying a pore filler or lacquer, a release agent must also be applied. This is especially necessary on Shellac. But a release agent must also be applied to unsealed products. Preferably a release spray .
Silicone molds usually do not need a release agent
Test carefully whether the mold or mold (after sealing and release agent) does indeed go together with this polyurethane.
Ensure component A and B component are both at room temperature (20-25°C) and ambient temperature above 16 ° C throughout the process including curing time.
Stir/ homogonize the components in the package first.
Mix with a spatula in a clean mixing bowl, as machine mixing can trap a lot of air. Carefully scrape sides of mixing bowl while stirring.
Pour as soon as possible after stirring. **DO NOT** scrape sides of pitcher while pouring as these might contain badly mixed material.
Allow the product to harden at room temperature and de-mould after the de-molding time. As with most room temperature polyurethanes, the final properties are reached after 7 days.

Use/ Do:

Cleaning
Wipe tools before product has cured. Use ethanol as a solvent, but watch out for flammability. Wax surfaces to easily keep workspace clean.

Properties
- Mixing ratio: A:B = 1:1 by weight (e.g. 100 grams A with 100 grams B)
- Hardness: 95-97 Shore A
- Pouring time, 250 grams: 4 minutes
- Demoulding time at 25°C: 1 hour
- Specific gravity: 1.02-1.07 grams/cm³
- Cured color: Yellow/Amber cloudy clear
- Initial Mixed Viscosity @ 20 ° C: 600-900 cSt
- Shrinkage on curing: 0.16% (High temperature dependent)
- Tensile strength: 9-10 N/mm²
- Elongation: 340-400%
- Tear strength: 65-75 N/mm
- Linear Shrinkage: <0,2%
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Shelf life
This product has a shelf life of at least 6 months with proper storage. Store in tightly closed containers without moisture (preferably covered with an inert gas) in a dark location between 15-32 ° C.

Safety regulations
Read the safety instructions on the safety data sheet before using this material. Take the right prevention measures.