

Novatech A-B Flexible Kit

DESCRIPTION

The Novatech Flexible Kit consists of two components (A and B), which, when mixed, cure at room temperature to form flexible, high-strength, and durable mold rubbers. The Novatech Flexible Kit is ideal for creating easy-release molds for casting plasters and waxes without the need for release agents. When properly prepared, Novatech Flexible Kit molds are also highly effective for casting concrete and a variety of resins, including epoxy, polyester, polyurethane, and acrylic.

PHYSICAL PROPERTIES

| | |
|---------------------------------------|----------------|
| Mix Ratio by Volume | 1A:1B |
| Shore Hardness* | A40 |
| Pour Time | 20 min. |
| Demold Time @ 73°F | 16 hr. |
| Cured Color | Amber / Varies |
| Mixed Viscosity (cP) | 2,000 |
| Specific Volume (in ³ /lb) | 27.5 |
| Specific Gravity | 1.01 |
| Elongation* (%) | 1,060 |
| Tensile Strength* (psi) | 360 |
| Die C Tear Strength (pli) | 77 |

*All values measured after 7 days at 73°F/23°C.

BEFORE USE

Thoroughly read Safety Data Sheets, product labels and the "SAFETY" section in this TDS.

MODEL PREPARATION

3D-Printed Models: For 3D-printed models, it is essential to address surface texture caused by layer lines to achieve a smooth finish. If the print is made using FDM, models should be sanded to reduce layer lines and imperfections. After sanding, coat the model with Novatech Mold Release to ensure proper mold release.

Porous Models: Porous models, such as wood, plaster, stone, pottery, or masonry must be sealed. Multiple coats of paste wax, dried and buffed, will seal most surfaces. Potters soap can also be used as a sealer for plaster. Once sealed, apply Novatech Mold Release to ensure easy mold removal. Porous models must be vented from beneath to prevent trapped air from forming bubbles in the rubber.

Models made of sulfur-containing modeling clay (e.g., Roma Plastilina) should be sealed with shellac.

CAUTION

When shellac is used as a sealer, it must be thoroughly coated with Novatech Mold Release because polyurethane rubbers bond tenaciously to shellac.

Non-Porous Models: Models made of non-porous materials, such as metals, plasticine, wax, glazed ceramics, fiberglass, and polyurethanes, should be coated with Novatech Mold Release to prevent adhesion and ensure easy mold release.

FEATURES

- Make durable, long-lasting molds owing to strength and elongation properties of cured rubber
- Easily thickened for brush-on applications
- No release agents needed when casting many plasters, waxes and concretes
- Captures detail from intricate masters

MIXING

The Novatech Flexible Kit has a 1A:1B mix ratio by volume. Before use, ensure that Parts A and B are at room temperature and that all tools or equipment are ready. Surface and air temperatures should remain above 60°F (15°C) throughout the application and curing process for optimal results.

When used with Flovv or Flovv-e, the resin components are precisely mixed at the point of injection through a mixing nozzle. The system ensures accurate 1A:1B ratios, eliminates bubble formation, and allows for the seamless addition of color pigments, which are evenly blended via in-tank mixing. The advanced pumping system preserves fluid quality by preventing moisture ingress and reducing oxidation while maintaining resin consistency.

For manual mixing, measure equal volumes of Parts A and B into a clean metal or plastic container. Avoid using paper or wooden tools, as they may introduce moisture. Mix thoroughly by scraping the sides and bottom of the container to achieve a uniform blend.

Pour the mixture into the mold cavity promptly to avoid premature curing and air entrapment.

CURING

Allow the flexible material to cure at room temperature (73°F/25°C). Carefully demold the part after approximately 16 hours. For best results, allow the mold to cure fully for 24–48 hours before use. Final cure properties are achieved in about seven days. Heat will accelerate the curing process, while lower temperatures will slow it down. Pre-warming molds can further reduce curing times.

Thin castings or thin sections will require longer curing times compared to thick sections. Avoid curing in environments where temperatures drop below 60°F (15°C).

STORAGE

Both Parts A and B are moisture-sensitive and should be resealed immediately after use to maintain product quality. Tightly close containers after dispensing to prevent atmospheric moisture from affecting the components.

CLEAN UP

For users of Flovv and Flovv-e, cleaning is streamlined with the built-in one-gallon cleaning tank and onboard air system, which utilize a combination of air and Novatech Cleaning Liquid to maintain clear nozzles and ensure repeatability. After completing your injection, simply purge the system with air to remove residual resin, followed by running the cleaning liquid to clear the mixing nozzle and pathways without requiring constant replacements. For those not using Flovv or Flovv-e, tools should be scraped clean before the resin hardens, and surfaces can be coated with Novatech Mold Release or wax or a release agent to simplify the removal of cured material. Novatech Cleaning Liquid is the recommended cleaning solution due to its efficiency and safety, while denatured alcohol may also be used with caution, as it is flammable and poses health hazards.

Novatech A-B F By following these steps, you can maintain the longevity and performance of your tools and equipment. Novatech Cleaning Liquid is the recommended cleaning solution due to its efficiency and safety, while denatured alcohol may also be used with caution, as it is flammable and poses health hazards. By following these steps, you can maintain the longevity and performance of your tools and equipment.

SAFETY

Before use, thoroughly review the Safety Data Sheets (SDS) and product labels for detailed safety precautions and handling instructions. Always adhere to the recommended guidelines to ensure safe use.

Part A: Keep out of the reach of children. Avoid inhaling fumes, vapors, or mists. Operate only in outdoor or well-ventilated areas. If necessary, use a NIOSH-approved respirator with an organic vapor cartridge. If inhaled, move the affected individual to fresh air, ensure they are resting comfortably, and seek medical attention if respiratory irritation occurs. If swallowed, seek immediate medical assistance and do not induce vomiting. Wear impervious gloves made of materials such as butyl rubber or nitrile rubber, and remove contaminated clothing for washing before reuse. Wash skin thoroughly with soap and water after handling. In case of skin irritation, consult a healthcare professional. Protect eyes with chemical safety glasses or goggles. If contact with eyes occurs, rinse cautiously with water for several minutes, removing contact lenses if easy to do. If irritation persists, seek medical attention.

Part B: Keep out of the reach of children and away from open flames or hot surfaces. Avoid eating, drinking, or smoking while handling the product. Ensure proper ventilation, using general or local exhaust systems to minimize exposure levels. If necessary, wear a NIOSH-approved respirator with an organic vapor cartridge. Always wear impervious gloves, such as those made from butyl or nitrile rubber, and wash skin thoroughly with soap and water after use. Protect eyes with safety glasses or goggles. In case of eye contact, rinse thoroughly with water for several minutes, removing contact lenses if easy to do. If irritation occurs or persists, seek medical attention promptly.

SHELF LIFE

For best results, store products in unopened containers at room temperature (60–90°F/15–32°C) and use products within six months from date of shipment.

DISCLAIMER

The information in this Technical Data Sheet (TDS) is accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results obtained from its use, or its non-infringement of any patent. Before use, the user must determine the product's suitability for the intended application and assume all risks and liabilities arising from its use.

ACCESSORIES

Novatech Mold Release, Novatech Color Kit, Novatech Cleaning Fluid. A-B Flexible Kit