IsoPour 40W401

IsoPour 40W401 is a non-HCFC, slow-reacting, low-exotherm, two-component, hand- or machine-mix, rigid, polyurethane foam system. Its inherent slow initiation time makes it acceptable for hand mixing and pouring into molds or cavities.

*Values given are not intended to be used in specific preparation

Component Properties	
Color - ISO	Dark Brown
Color - POL	Light Brown
Specific Gravity - 74°F, ISO	1.22 - 1.25
Specific Gravity - 74°F, POL	1.06
Viscosity - ASTM D-2196 - 74°F, ISO	150 - 250 cps
Viscosity - ASTM D-2196 - 74°F, POL	800 - 1800 cps
Reactivity Profile	
Ratio by Weight - ISO:POL	57.5:50
Ratio by Volume - ISO:POL	1:1
Cream Time	37 - 45 Seconds
Gel Time	130 - 160 Seconds
Rise Time	190 - 220 Seconds
Tack Free Time	230 - 270 Seconds
Typical Physical Properties	
Compressive Strength - ASTM D695 - Parallel to Rise	51 psi
Compressive Strength - ASTM D695 - Perpendicular to Rise	45 psi
Free Rise Density	3.8 - 4.2 pcf
Water Absorption - ASTM D2842	9.8 %
Foam Tensile - ASTM D1623	37 psi
Sandwich Shear - ASTM C273	80 psi

RECOMMENDED HANDLING INSTRUCTIONS

Isotec® International's Recommended Application and Handling Instructions
-Use only in well-ventilated areas.
-Wear chemically resistant rubber gloves, safety glasses, and an apron.
-Avoid prolonged or repeated contact with skin.
-In case of skin contact, wipe affected area with isopropyl alcohol, followed by soap and water.
-In case of eye contact, flush eyes with water for 15 minutes and consult a physician.
-If swallowed or comes into contact with eyes, seek medical attention immediately.

Always mix/roll POL side prior to use to ensure a homogenous product.

TYPICAL APPLICATIONS-

Isotec®'s IsoPour products can be used as casting material for customized shapes that need to be lightweight and

decorative. The IsoPour products are also used as a filling material to add structural strength to hollow castings such as taxidermy or archery targets. Isotec®'s IsoPour products can also be used for industrial design, special effect applications and other various art/craft applications.

Measuring and Mixing - Liquid urethanes are moisture sensitive and will absorb atmospheric moisture. Mixing tools and containers should be clean and made of metal, glass or plastic. Materials should be stored and used in a warm environment (~72°F) to achieve optimal results.

Know the mix ratio and initiation time for the IsoPour products you are using. This information is located in the Reaction Profile section of the Technical Data Sheet. Isotec®'s IsoPour products can be mixed with a jiffy mixer. After dispensing the correct amounts of POL and ISO into the mixing container, mix thoroughly for 10-20 seconds. Stir quickly making sure that you scrape the sides and bottom of the mixing container several times; be careful not to splash low viscosity material out of the container. Remember, foams cure quickly. Do not delay between mixing and pouring.

Pouring & Curing - For best results, pour your mixture in a single spot at the lowest point of the mold containment field and let the mixture seek its level. Allow space in the containment field for the foam to grow as it expands to its ultimate volume. Allow foam to cure for at least 30 minutes before handling.
Improving Surface Finish & Minimizing Voids With Back Pressure - Use a board that will completely cover the mold opening. Using a 3/4" (2 cm) drill bit, drill 3 holes in the board spaced a few inches/cm apart. Make sure that, when the board is placed over the mold opening, the holes are over the mold cavity and rising foam will be able to make it through. Apply IsoKote S5 mold release thoroughly to both sides of the board and into the drilled holes. Mix and pour IsoPour into mold cavity and place board over mold opening. Secure board firmly in place (mold straps may be necessary). As foam rises in the mold cavity, some foam will grow out of the drilled holes. After the foam stops growing, you can let go of the board. Do not handle for at least 30 minutes. You can then cut excess material that came through holes and gently remove board and casting.

Fully Cured Foam can be sanded, machined, drilled, etc. (wear NIOSH approved respirator). Foam can also be primed and/or painted.

STORAGE

Protect ISO and POL side from moisture. If the ISO side material is exposed to moisture, including moisture from the air, it will release CO^2 gas. If placed in a sealed container, this gas can cause a dangerous build up of pressure potentially resulting in injury or death. If the POL side is exposed to excess moisture and then applied it may cause weak or foamed material to be applied.

SAFETY

-Refer to the product SDS for all relevant safety information.

Date Modified 7/28/2020