

IsoFloat 20C402

IsoFloat 20C402 is a 100% CFC/HCFC-free, slow-reacting, two-component, machine-mix, rigid, polyurethane foam system designed in particular for the flotation market. This system is designed for good flowability to fill cavities in boats and other flotation devices.

APPLICATIONS

- Floating docks
- Marine Assemblies

PRODUCT ADVANTAGES

- 1:1 System by volume
- Slow Reacting

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

Component Properties

Color - ISO	Dark Brown Amber
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Color - POL	light Brown
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Specific Gravity - 74°F, ISO	1.22 - 1.25
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Specific Gravity - 74°F, POL	1.04 - 1.08
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Viscosity - ASTM D-2196 - 74°F, ISO	150 - 250 cps
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Viscosity - ASTM D-2196 - 74°F, POL	850 - 1200 cps
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Reactivity Profile

Ratio by Weight - ISO:POL	110 - 100
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Ratio by Volume - ISO:POL	1 - 1
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Cream Time	35 - 45 Seconds
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Gel Time	190 - 230 Seconds
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Rise Time	305 - 360 Seconds
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Tack Free Time	330 - 420 Seconds
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Typical Physical Properties

Closed Cell Content - ASTM D6226	83.23 %
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Compressive Strength - ASTM D695 - Parallel to Rise	27 psi
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Compressive Strength - ASTM D695 - Perpendicular to Rise	20 psi
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Free Rise Density	1.9 - 2.1 pcf
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K Factor, initial per inch - ASTM C518	.199
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R value, initial per inch	5.030
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HALT Dimensional Stability - 73°F- 32 days	-6.55
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Water Absorption - 24 hour soak at 77°F	.18 lbs/ft ²
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RECOMMENDED HANDLING INSTRUCTIONS

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

TYPICAL APPLICATIONS- Isotec®'s IsoFloat 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 IsoFloat 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 IsoFloat products you are using. This information is located in the

Reaction Profile section of the Technical Data Sheet. Isotec®'s IsoFloat 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

The reaction of isocyanates with water leads to the formation of insoluble ureas and carbon dioxide gas which can result in pressure build up inside closed containers. The polyol side is hygroscopic. Therefore, extreme care must be taken to assure containers containing remain dry. Reaction from atmospheric moisture can be prevented by storing IsoFloat 20C402 in carefully sealed containers or under a dry nitrogen atmosphere. During handling, IsoFloat 20C402 must also be protected from atmospheric moisture and water contamination, and containers must be carefully resealed with dry nitrogen after each sampling. If either iso or polyol side comes in contact with moisture, even atmospheric moisture, the final product could result in lower density and/or a weaker product.

IsoFloat 20C402 should not be exposed to lower temperatures for long term. Low temperatures result in increased viscosity and slower reactivity which makes handling more difficult. It is not advisable to store IsoFloat 20C402 for long periods below 68°F (20°C). The recommended storage temperature for IsoFloat 20C402 is 68 to 77°F (20 to 25°C).

IsoFloat 20C402 has a 6 month shelf life for any unopened containers.

SAFETY

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

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