



KATS 7031 Casting Sealant

Product Information Sheet

Product Description

A cost effective product of the KATS 7000 series that is designed to eliminate porosity leaks on ferrous and non-ferrous castings and to enhance the bonding capabilities of powder coats and paints applied to those castings.

Advantages

KATS 7031 is a unique water base sealant that has been formulated using thermoplastic, acrylic chemistry. It permanently fills and covers small voids that may be inherent in castings. The product will also enhance the bonding capability of powder coats, water base paints, and other types of coatings. KATS 7031 will reduce the number of casting rejects.

Physical Properties and Technical Data

FinishGlossy, Transparent

Color (Virgin Product).....Milky White

Dry Film Thickness0.1 - 0.2 mil
(2.54 - 5.08 microns)

pH7.0 - 8.0

Density8.49 lb/gal (1.02 g/cm³)

Viscosity (Brookfield, 72°F
Spindle #1 - 60 rpm).....4 - 10 cps

Solids, %24 - 26
(ASTM D-2369)

Pressure Test.....Pass (No bubbling or pressure
(MKA-02-W-001) drop through the orifice.)

Adhesion Test.....5B (No loss of paint.)
(ASTM D-3359)

Longevity Test (MKA-02-W-039) ...Pass (No pressure drop
(60 days @ 300°F) through the orifice.)

Product Shelf Life ----- 1 year stored at 45° - 85°F
(7° - 29°C)

Packaging

<u>Container</u>	<u>Volume in Gallons</u>	<u>Volume in Liters</u>
Tote	260	984.1
Drum	55	208.2
Pail	5	18.9

Do not freeze this product. Freezing may negatively affect product quality.

Attributes

- Permanently seals small holes inherent in castings.
- Fast dry time, enabling quick handling.
- Coating film is not visible after it has dried.
- KATS 7031 can be applied to warm castings up to a casting temperature of 200°F (93.3°C).
- KATS 7031 does not contain wax or petroleum components (nonflammable).
- The product can be applied by dip or flow coat.
- The product is environmentally friendly and user safe.

Application Considerations:

KATS 7031 can be applied over:
Ferrous, Non-Ferrous Castings

Surface Preparation:
Clean and Dry, Uncontaminated

Environmental Conditions for Application:
Surface Temperature Up to 200°F (93.3°C)

Recommended Safety Equipment:
Wear dust mask and other proper gear. (Refer to Material Safety Data Sheet for more information.)

Application Method:
Automatic, Manual, Dipping, or Flow Coat

Dry Time:
At 75°F 20 - 30 min
At 200°F 1 - 2 min on a surface

Typical Coverage: ----- 2000 ft²/gal - 4000 ft²/gal
(49.3m²/l - 98.5m²/l)

This product is water based; therefore, use only PVC or stainless steel piping, fittings, and suction tubes with it. Iron piping may cause the coating to be rust contaminated.

Information

For more technical information or to place an order, please call:
800-699-6318 or 972-771-1000

**A TYPICAL APPLICATION OF KATS 7000 CASTING SEALER
BY FLOW COATING IT ONTO ENGINE BLOCKS**

1. Phosphate clean the block.
2. Water rinse and dry the block in an oven set to approximately 200°F for approximately 5 to 7 minutes. Allow considerable air movement within the oven. The block should exit this drying chamber to be at a temperature of between 115°-125°F.
3. Apply KATS 7031 by flow coat process. (The block is flow coated within several minutes of its removal from the drying chamber.)
4. Allow 7 minutes to pass and then apply the powder coat to the block.
5. Bake the block in an oven set at 350°F for approximately 20 minutes.
6. Unload the block from the line and place it onto a pallet.

MKA-02-W-001

Casting Pressure Test (Two Passes)

1. Obtain a cast iron panel (4 in x 6 in) bored with four 0.015-inch holes.
2. Place this cast iron panel with a surface thermometer into a conventional oven. The oven should be set at 230°F.
3. When the cast iron panel reaches a surface temperature of 230°F, remove it from the oven. Using a spray bottle containing the KATS Casting Sealer, spray the panel generously at a 60-degree angle with 2 passes.
4. Allow 3 minutes to pass and then check the panel for tackiness. The panel should be tack free.
5. Set the panel aside and let it dry for 24 hours at room temperature, typically 77°F.
6. Place the coated panel directly over the open port of the pressure-testing vessel and bolt the panel down. Hook up the air nozzle to the pressure vessel and apply 6 to 8 psi for 1 hour.
7. Submerge the test vessel in a water bath for 1 hour to check for any leaks. If any bubbles are noticed, the test plate is considered a failure.
8. If there are no leaks after 1 hour, the pressure-testing vessel should remain pressurized for 24 hours and then observed to determine if any pressure drop has occurred.
9. If no change in the pressure has occurred, then the coating has effectively sealed the holes.

MKA-02-W-034

Casting Pressure Test (One Pass)

1. Obtain a cast iron panel (4 in x 6 in) bored with four 0.015-inch holes.
2. Place this cast iron panel with a surface thermometer into a conventional oven.
3. As the cast iron panel reaches a surface temperature of 110°F, pull the panel from the oven. Using a spray bottle containing the KATS Casting Sealer, spray the panel generously at a 180-degree angle.
NOTE: It is not necessary to spray additional sealer once the initial sprayed on coating has dried.
4. Allow 3 minutes to pass and then check the panel for tackiness. The panel should be tack free.
5. Set the panel aside and let it dry for 24 hours at room temperature, typically 77°F. Alternatively, the panel may also be dried by placing it into an oven set at 120°F for 2 hours.
6. Place the coated panel directly over the open port of the pressure-testing vessel and bolt the panel down. Hook up the air nozzle to the pressure vessel and apply 6 to 8 psi for 1 hour.
7. Submerge the test vessel in a water bath for 1 hour to check for any leaks. If any bubbles are noticed, the test plate is considered a failure.
8. If there are no leaks after 1 hour, the pressure-testing vessel should remain pressurized for 24 hours and then observed to determine if any pressure drop has occurred.
9. If no change in the pressure has occurred, then the coating has effectively sealed the holes.

The above data is subject to usual manufacturing variations.

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2007 KATS Coatings Division, K-TD-31 8-17-07 jk/bg