EMERSON & CUMING MICROWAVE PRODUCTS

RoHS Compliant

ECCOSORB® CERSEAL

UL Rated Vinyl Based Coating for ECCOSORB® AN, LS and QR-13AF

Material Characteristics

- CERSEAL is a factory applied vinyl based coating used to seal microwave absorbers in the ECCOSORB® AN, LS and QR-13AF product lines
- CERSEAL is a tough coating that adds durability to foam and imparts abrasion and puncture resistance
- CERSEAL is a superior low cost alternative to the neoprene coated fabric used on ECCOSORB® ANW

Applications

- Excellent for weatherproofing custom fabricated parts with compound surfaces!
- In the medical industry and other sterile environments where carbon loaded foams are used, CERSEAL fully encapsulates the foam to keep carbon dust from falling out of the material
- CERSEAL can be used directly outdoors for the weatherproofing of foam absorbers applied to both vertical and horizontal surfaces
- CERSEAL coated foams have been used in the fuselage of planes to prevent moisture uptake in high humidity environments
- CERSEAL can be used as a barrier between sensitive electronic components and the conductive foam to prevent electronics from shorting out

Chemical Resistance (ASTM D1308)

- When applied, CERSEAL creates a barrier to moisture and chemicals. CERSEAL has excellent resistance to fluids and petroleum products
- Very Good resistance to: Mineral oil, Saline, Blood, Urea (6% in H_2O), Acid (10% Sulfuric in H_2O), Betadiene-Iodine (stained after 5 minutes), Alcohol, Machine oil and 409 all purpose cleaner
- Good resistance to Gasoline

Availability

- CERSEAL is available as a factory applied coating on standard 24" x 24" sheets or on custom fabricated parts.
- Coated materials can be attached using our SS3 Pressure Sensitive Adhesive that is factory applied
- CERSEAL liquid is available in quart containers for patching and repairs only. *See backside of this technical bulletin for instructions on how to apply.*

Typical Properties

Service Temperature, °F (°C)	0 to 280 (-18 to 138)
Color	Light gray to white
Fire Retardancy	UL 94HB flammability rated on UL 94 HF-1 foam
Shelf life (liquid only)	6 months

Note: The spraying of CERSEAL may magnify any slight imperfections in the foam, which may be evident visually. These imperfections are only cosmetic in nature and do not affect the material's performance

Instructions for Use

- Use adequate ventilation

CERSEAL Liquid Surface Preparations

- All surfaces to be coated must be free of any oils, dust or loose foam particles.

Mixing Instructions

Quality control recommendations for spray and dip applications

- Like most liquid vinyls, ECCOSORB® CERSEAL LIQUID may coagulate during storage, requiring thorough remixing agitation before use each day. For best results, a Cowles® or dispersion blade gives the maximum combination of high shear, excellent flow and circulation. Note: It has been found that the dispersion blades are highly effective, fast and produce more shearing action than can be obtained from a standard mixing blade or paddle. After the ECCOSORB® CERSEAL LIQUID has been agitated thoroughly, it should last 8 to 10 hours depending on your dip tank/spray equipment and temperature.

- Avoid making solvent additions before mixing. Check viscosity. Some adjustments may be necessary for your particular use.

Prime coat: Set pot pressure at 20-25psi and atomizing at 30-50psi, open pattern adjustment for a 2"- 4" pattern at 6"-10" from surface. Aim spray gun at foam and fully trigger spray gun. Open material adjustment until a uniform, wet splatter appears on the foam. The wet splatter should melt or flow into the surface of the foam. Coat all sides (except bottom) with an overlapping motion. Make sure all corners and edges are thoroughly primed. The prime coat should be wet to the touch but should not completely color or cover the foam. Its purpose is to wet or prime the surface for the sealing coat, a necessity for proper adhesion.

Seal coat: After the prime coat has been applied, immediately begin sealing the foam by only partially pulling the trigger back from its previous setting until a dry, web coating appears. This seal coat should appear lighter in color than the prime coat. Hold gun approximately 6"-10" from surface and use an overlapping motion, being sure to **completely** seal the surface. If seal coat is applied too dry, poor adhesion will result. If applied too wet, sealing surface may become difficult. Again, seal all sides (except bottom), being sure to **check entire surface for complete seal.**

Finish coat: After seal coat has been applied, immediately begin applying the finish coat by fully triggering spray gun as in prime coat. Holding the gun 6"-10" from surface, apply a uniform splatter coat using an overlapping motion. Apply the finish coat as desired in thickness and texture. The finish coat is necessary to increase seal coat strength and durability. Allow the finished coated part to dry to the touch (see caution), minimum 5 minutes, then return to prime coat, seal coat, and finish coat bottom of part. Follow instructions and be sure to pay close attention to corners and edges on all steps.

NOTE: To accelerate final drying, place coated object in ventilated oven at 100°F-140°F for 5 minutes. Make sure heat source is safe for this use and that you ventilate properly. To increase coating speed, you may increase atomizing pressure; open material adjustment and pattern adjustment to your comfort level.

CAUTION: It is important to apply all coatings at once. Do not allow to set more than 10-20 minutes or subject to heat.

RECOMMENDED EQUIPMENT AND SETTINGS:

Binks® model 95 gun	Nozzle: 63B
Cap: 66SD	Needle: 363-A
Material: 25psi	Atomization: 30-50psi
Dilution: none required	Clean up: Acetone and Methyl Ethyl Ketone

HINTS: Always mix before **spraying**. Avoid excessive air movement, heat or humidity. Always use proper ventilation and protection.

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