



Using ENESEAL® HR

PLEASE READ THESE INSTRUCTIONS AND MATERIAL SAFETY DATA SHEET (MSDS) CAREFULLY PRIOR TO USE

ENESEAL® HR is a single component, water based, ceramic filled liquid which dries to a durable, seamless, flexible 'skin' that refracts and reflects heat while providing a moisture resistant barrier to virtually any type of surface, i.e. all types of insulation, plastics, concrete, brick, block, slate, tiles, wood, metal, etc.

ENESEAL® HR is easily applied by brush, roller or spray. Because it's water based, clean-up is quick and easy with soap and water. Completely non-toxic and non-flammable.

SURFACE PREPARATION

ENESEAL® HR should only be applied to clean, dry and structurally sound surfaces. Concrete, brick, block or other masonry or cementitious surfaces must be free of efflorescence. Any contaminants, such as oil, must be removed by pressure washing, steam cleaning, solvent cleaning, etc. Any existing coatings must be sound and well bonded to the substrate. Loose or flaking coatings must be removed by rotary wire brushing, abrasive blasting, grinding or other suitable means. All rust must be removed.

PRIMING UNPAINTED FERROUS METAL SURFACES

Prior to applying ENESEAL® HR to unpainted ferrous metal surfaces, these areas should be first primed with ENESEAL® CR to prevent rust bleed through the water-based ENESEAL® HR. ENESEAL® CR should only be applied with the temperature is above 45°F / 7°C and when the relative humidity is below 85%. Surfaces being treated should be at least 5°F / 3°C above the dew point.

ENESEAL® CR may be applied by brush, roller or spray. The material should be applied at a wet film thickness of approximately 12-14 mils (300-350 microns) to achieve the desired dry thickness of 7-8 mils (175-200 microns) per coat.

APPLICATION

ENESEAL® HR is a water based system and, therefore, must not be applied when freezing conditions exist or are expected within 24 hours of the application. Do not apply ENESEAL® HR if rain or snow is expected within 24 hours of the application.

Applications onto hot surfaces, i.e., steam pipes or ducts, must not exceed 140° F / 60°C. Equipment should first be cooled prior to the application of the ENESEAL® HR. Once the ENESEAL® HR has cured for 24 hours it can withstand dry heat temperatures of up to 300°F / 150° C. Applications to newly tarred or to petroleum based materials / substrates must not be carried out until the material has fully cured - usually 2-3 months.

Technical Data

Unit size:	15 liters
Color:	White
Finish:	Eggshell
Volume Solids:	56%
Vehicle Type:	Water based, vinyl terpolymer matrix.
Shelf Life:	2 years (some settling may occur - mix before use). Store between 41°F/5°C and 95°F/35°C.
Drying Time:	Typically 1 hour under normal ambient conditions. Allow 24 hours before placing components / equipment back in service.
Overcoating:	Additional coat(s) may be applied after 2 hours under normal ambient conditions.
Coverage Rate:	35 - 40 ft ² (3.3 - 3.7 m ²) per liter per coat. Coverage rates will vary depending on substrate type, surface porosity, texture, etc.
Application Thickness:	6 mils dry film thickness (DFT) per coat (11 mils wet film thickness). Two coats are recommended.
Primer:	ENESEAL® CR (for unpainted ferrous metals and galvanized surfaces).
Thinning:	Use warm water (do not exceed 5% of total volume).
Spraying:	Airless spray. Minimum pressure: 2200 psi Tip orifice: 0.031 - 0.037 and 5-17.
Elongation:	300% - (ASTM D-2370)
Fire Retardancy:	Applied HR does not support combustion and extinguishes upon removal of flame. - (ASTM D-1360)
Tensile Strength:	125 psi - (ASTM D-638)
Water Vapor Transmission:	1.26 gr / hr - ft ² - (ASTM E-96)
Permeance:	2.8 perms - (ASTM E-96)
Solar Reflectance:	Initial = 0.75. After 3 years = 0.58
Thermal Emittance:	Initial = 0.91. After 3 years = 0.90
SRI:	Initial = 93. After 3 years = 69

HEALTH & SAFETY

Every effort is made to insure that ENECON® products are as simple and safe to use as possible. Normal industry standards and practices for housekeeping, cleanliness and personal protection should be observed. For further information and guidance, please refer to the detailed MATERIAL SAFETY DATA SHEETS (MSDS) supplied with the material and also available on request.

CLEANING EQUIPMENT

Clean tools, equipment and overspray, while wet, with warm soapy water. Dried residue can be cleaned with solvents such as mineral spirits or alcohol.

TECHNICAL SUPPORT

The ENECON® engineering team is always available to provide technical support and assistance. For guidance on difficult application procedures or for answers to simple questions, call your local ENECON® Fluid Flow Systems Specialist or the ENECON® Engineering Center.

All information contained herein is based on long term testing in our laboratories as well as practical field experience and is believed to be reliable and accurate. No condition or warranty is given covering the results from use of our products in any particular case, whether the purpose is disclosed or not, and we cannot accept liability if the desired results are not obtained.

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