

Mascoat® INDUSTRIAL-HR



Selection & Specification Data

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| Product Name | Mascoat Industrial-HR |
| Product No. | MI-HR |
| Description | Mascoat Industrial-HR is a coating comprised of proprietary air-encapsulated particulates with highly reflective properties that provides an insulating barrier, reduces solar loading, and prevents corrosion all in one application. The coating is specifically designed to be a multiple purpose coating solving painting and insulating issues. |
| Features | <ul style="list-style-type: none"> ◆ High reflectance characteristics ◆ Excellent thermal insulation at low thickness ◆ Excellent personnel protection ◆ Prevents Corrosion Under Insulation (CUI) ◆ Provides inspection ability w/o removal ◆ Fast cure times ◆ Low VOC product ◆ Easy application to irregular surfaces |
| Base | Water-based acrylic insulation coating |
| Gloss | Flat |
| Priming | Self priming over non-ferrous materials (stainless steel & aluminum). Primer required for carbon steel substrates. |
| Topcoats | Please consult Mascoat for specific details |
| Wet Weight | 5.74 lbs/gallon (0.69 kg/liter) |
| Weight Dry Film To Area | 0.058 lbs/ft ² at 20 mils dft (0.28 kg/m ² at 0.50 mm dft) |
| Practical Volume Solids Content | 78–80% |
| Average Thickness per Coat | 20–22 mils WFT at 70°–130°F (0.5 mm WFT at 21°–54°C) |
| Practical Dry Coat Coverage | 50–55 ft ² /gal @ 20 mils (1.4 m ² /liter @ 0.5 mm) |
| VOC Content | 0.06 lbs/gal (7.6 grams/liter) |
| Limitations | Peak operational temperature should not exceed 375°F (190°C). Maximum sustained temperature should not exceed 350°F (177°C). |
| Storage | Do not subject wet coating in pail form to freezing conditions. Coating should be kept in a warehouse between 60°F and 90°F (16°C and 32°C). |

Substrates & Surface Protection

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| Surface Prep | Surface should be dry and free of foreign matter. Surface prep can be used to NACE 1-3 (SSPC SP 5-6) when applicable. |
| Ferrous Surfaces | Should be primed prior to application of MI-HR Insulating Coating. Since the coating is water-based, it is important to have a boundary layer of protection to prevent flash rusting. |
| Non-ferrous Surfaces | The coating can be applied directly to non-ferrous surfaces. Surface should be clean and free of any oil, dirt, or other foreign matter. |

Application Equipment

Listed below are the general equipment guidelines for the application of this product

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| Airless Sprayer | Pump Ratio: 33:1 or larger |
| | Output per Cycle: 180cc (Minimum) 290cc (Optimum) |
| | Volume: 1.5 gpm (5.7 lpm) or greater |
| | Hose: 3/8" or larger with no more than 3' of 1/4" whip. 1/2" hose recommended for length above 50'. |
| | Tip Size: 0.017" (for tight spots) 0.019–0.023" (Normal use) |
| | Pressure: Minimum of 3000 PSI |
| Small Spray Application | Please consult Mascoat for the Small Application Sprayer. This sprayer is excellent for small applications and touch-ups. |
| Brush or Roll | Not recommended for this coating |

Application Conditions

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| Surface Temperatures | Surface temperatures for applications should be greater than 60°F (15°C). Lower surface temperatures will increase dry times. |
| Applications | <i>Ambient & Cold (60°–139°F, 15°–59°C):</i> For temperatures (surface or ambient – whichever is lower), an initial tack coat is recommended of 10 mils (0.25 mm or 250 microns). This tack coat will help eliminate sag on vertical wall applications. Tack Coat should be dry to touch prior to next pass. Typical coat thickness should not exceed 20–22 mils (0.5–0.55mm) wet. Coating can be reapplied after each coat is thoroughly dry. <i>Hot (>140°F, >60°C):</i> Please consult Mascoat |
| Application Thickness | Product can be applied in successive coats to increase insulation ability. There are no upper limitations. |
| Dryfall | Dryfall within a 3 ft. radius |

Other Coating Specifications

| Item | English Value (Metric Value) | Test Method |
|----------------------|---|---------------------|
| Cyclic Salt Fog | Excellent 2000 hrs | ASTM B-117 |
| UV-A Exposure | Excellent 2000 hrs | ASTM D-5894 |
| Humidity Cabinet | Excellent 2000 hrs | ASTM D-4585 |
| QUV | Excellent 2000 hrs | ASTM G-154 |
| Permeability | Low — 4.98 perms (3.28 grams/24 hrs/m ² /mm/hg) | ASTM 1653-03 |
| Transmission | Low — 4.14 grains/hr/ft ² | ASTM 1653-03 |
| Cross Hatch Adhesion | 100% 5 B | ASTM D-3359 |
| Pull Apart Strength | 260–300 psi | ASTM D-4541 |
| Thermal Conductivity | 0.4381 Btu-in/ft ² -hr-°F (0.0698 W/m/K) | Thermal Probe Study |
| Elongation Rate | Above 30% | ASTM D-638 |
| Absorptance | 0.14 | Calculated |
| Emissivity | 0.85 | C-1371 |
| Solar Reflectivity | 0.86 | C-1549 |
| Flame Spread | 10 | ASTM E-84 |
| Smoke Developed | 20 | ASTM E-84 |
| Fire Rating | Class A | ASTM E-84 |

Mixing & Thinning

Mixing Only a mud mixing paddle should be used. Use 1/2" drill motor to stir contents with paddle. *Make sure drill is set to reverse to ensure that the paddle will not mar the bucket's inner wall.* Please consult Mascoat for paddle, if needed. DO NOT MECHANICALLY SHAKE.

Thinning DO NOT THIN unless authorized in writing by Mascoat.

Pot life Coating is one part, so no catalyzation is needed. Pail can be reused if properly sealed.

Container 5 gallon pail (18.92 liters)

Package, Handling & Storage

Container Wet (with pail/lid) 31–33 lbs per 5 gallon pail
(14–15 kg per 18.92 liters)

Net Contents 28–29 lbs per 5 gallon pail
(12.5–12.8 kg per 18.92 liters)

Flash Point (Setaflash) None

Storage Product should be kept in a storage area above 50°F (10°C). Product can be reused if sealed correctly. Keep the container out of direct sunlight for sustained periods of time.

Shelf Life 18 months shelf life from manufacture date.

Caution Do not let product freeze

Cleanup & Safety

Cleanup Equipment may be cleaned with soap & water

Safety Half-face respirator recommended with ammonia cartridge or better. Eye protection recommended.

Ventilation Recommended for constricted areas.

Caution This material is not for human consumption

Clothing Safety clothing & gloves are recommended

Dry Times vs. Humidity

| Surface Temperature | % Humidity | Time Between Coats (hours) |
|---------------------|------------|----------------------------|
| 61–70°F (16–21°C) | 10–30% | 4.00 |
| | 31–50% | 5.50 |
| | 51–70% | 6.50 |
| | >70% | 8.00 |
| 71–80°F (22–26°C) | 10–30% | 2.00 |
| | 31–50% | 3.00 |
| | 51–70% | 3.50 |
| | >70% | 4.00 |
| 81–90°F (27–32°C) | 10–30% | 1.50 |
| | 31–50% | 2.00 |
| | 51–70% | 2.50 |
| | >70% | 3.00 |
| 91–100°F (33–37°C) | 10–30% | 1.25 |
| | 31–50% | 1.50 |
| | 51–70% | 1.75 |
| | >70% | 2.00 |
| 101–110°F (38–43°C) | 10–30% | 1.00 |
| | 31–50% | 1.25 |
| | 51–70% | 1.50 |
| | >70% | 1.75 |
| 111–120°F (44–49°C) | 10–30% | 0.75 |
| | 31–50% | 1.00 |
| | 51–70% | 1.25 |
| | >70% | 1.50 |
| 121–130°F (50–54°C) | 10–30% | 0.50 |
| | 31–50% | 0.75 |
| | 51–70% | 0.75 |
| | >70% | 1.00 |

Use 90° thumb test or moisture meter prior to recoat. This is the estimated dry time for 15–20 mils (0.38–0.50 mm) of Mascoat Industrial-HR wet. Dry time may vary depending on other conditions such as wind or enclosed environments. Lighter thickness passes will expedite dry times. Forced ventilation in confined areas will also expedite dry times.

Cure Times

| Temperature | Cure Time |
|--------------------|-----------|
| 50–60°F (10–15°C) | 60–72 hrs |
| 61–70°F (16–21°C) | 48–60 hrs |
| 71–80°F (22–26°C) | 36–48 hrs |
| 81–90°F (27–32°C) | 20–24 hrs |
| 91–100°F (33–37°C) | 18–20 hrs |
| >100°F (>37°C) | 14–16 hrs |

The data within is true to the best of our knowledge on the date of publication and is subject to change without prior notice. We guarantee our products to conform to Mascoat quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. All logos property of their respective owners.