



TECHNICAL DATA SHEET

HAMMERITE METAL PAINT

Smooth

Hammered

Satin

Matt

Forged

Aerosol



BS EN ISO 9002 : 1994
No. FM 14836



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1.PRODUCT NAME

HAMMERITE HAMMERED FINISH	– Brushing & Aerosol
HAMMERITE SMOOTH FINISH	– Brushing & Aerosol
HAMMERITE SATIN FINISH	– Brushing
HAMMERITE MATT FINISH	– Brushing
HAMMERITE FORGED FINISH	– Brushing

2.DESRIPTION

Hammerite paint is a single pack, air drying corrosion resistant and decorative coating. It is based on synthetic resins and is suitably pigmented for optimum weathering properties. Hammerite is fast drying and capable of multi-coat application any time after 4 hours. The specially selected resins impart a gloss or satin finish which resists dirt pick up. Hammerite has excellent wetting properties making it tolerant to poorly prepared ferrous surfaces.

3.USE

As a corrosion resistant and decorative coating for ferrous and non-ferrous metals, wood and certain plastics.

4.APPEARANCE

Hammerite Smooth - a smooth gloss. *Note: Gold, Silver and Copper are metallic sheen finishes.*

Hammerite Hammered - a smooth gloss incorporating a hammered pattern.

Note: Pattern will vary depending on temperature, colour, substrate and method of application.

Hammerite Satin - a smooth sheen.

Hammerite Matt - a smooth flat sheen.

Hammerite Forged – textured finish

5.COLOUR RANGE

See colour chart.

Note: Hammerite Hammered, Smooth and Satin Finishes are produced to Hammerite Products Limited's own in-house colour standards and are not matched to BS 4800 or RAL standards.

All Hammerite Hammered colours can be intermixed though the pattern may be affected.

All Hammerite Smooth colours can be intermixed except for Smooth Gold, Silver and Copper.

All Hammerite Satin colours can be intermixed.

Do not mix Hammerite Satin with any other Hammerite finish.

Do not intermix Hammerite Hammered, Smooth or Satin finishes.

6.SURFACE PREPARATION

FOR RUSTED METAL SURFACES:

- Minimum standard for adequate performance - St 2 (*Swedish Standard SIS 05 59 00*). This should be achieved by abrasion with coarse emery paper or needle gun/grinder, where applicable.
- All surfaces must be dry and free from loose rust, dirt, dust, grease and salt.

BARE METAL SURFACES:

- Degrease with Hammerite Brush Cleaner.

PAINTED METAL SURFACES:

- Abrade the painted surface to remove contaminants/gloss.
- Wash down thoroughly with diluted detergent.
- Rinse with clean water.
- Allow to dry.
- Test for compatibility with existing paint by painting a small test area first. Any compatibility problems will be evident within the first hour after application.

SHINY, SMOOTH METAL SURFACES

- Extra abrasion is required to ensure maximum adhesion.
- Degrease with Hammerite Brush Cleaner.

UNPAINTED GALVANISED/ALUMINIUM/NON FERROUS METAL SURFACES

- To ensure maximum adhesion on aluminium and non ferrous metal surfaces use Hammerite Special Metals Primer.

Notes:

- *In many areas, industrial and coastal districts in particular, soluble salts may contaminate the substrate. It is essential to scrub and rinse repeatedly with clean water to remove this contamination.*
- *Extremely rough or pitted ferrous metals will benefit from the application of Hammerite No. 1 Rust Beater before using Hammerite paint.*

OTHER SURFACES:

PLASTICS

- Hammerite paint may be used on certain types of plastic such as drainpipes and guttering.

WOOD

- Bare wood - apply a water based acrylic wood primer before applying Hammerite paint.
- Painted wood:
 - Abrade the painted surface to remove contaminants/gloss.
 - Wash down thoroughly with diluted detergent.
 - Rinse with clean water.
 - Allow to dry.

7.RECOMMENDED FILM THICKNESS

- Minimum 200 microns wet.
- Minimum 100 microns dry.

The number of coats required to achieve this will vary depending on substrate and method of application.

8.COVERING CAPACITY

5 sq metres/litre for two coats at recommended dry film thickness (brushing).

9. APPLICATION

Apply at least 2 coats leaving at least 4 hours between coats.

Minimum application temperature: 3°C above dew point

Ideal application temperature: 8-30°C (46-86°F)

Maximum relative humidity: 85%

10. APPLICATION METHODS

Brush - Suitable for small flat areas and intricate wrought ironwork.

- Stir before use.
- At least two coat coverage is essential to bare or rusty metal to achieve film thickness for corrosion resistance, however Hammerite paint will take longer to dry and sag if over applied.
- Ensure edges and corners are adequately covered, these are at greatest risk of premature rusting.

Roller - Suitable for larger flat areas.

- Hammerite is designed to be ready for use.
- Hammerite paint can be thinned to ease roller application. Use Hammerite Brush Cleaner or white spirit at a ratio of 9 parts paint to 1 part Brush Cleaner.
- The edges should be brushed in first and the remaining area's quickly filled in with the roller.
- For best results apply liberally using short, quick strokes.

Spray - Suitable for large flat and uneven surfaces

Note: The following contain silicones:

- Hammerite Hammered finish - all colours
- Hammerite Smooth finish – gold, silver and copper.

Conventional Spray

- Thin Hammerite metal finish with 15% Hammerite Brush Cleaner and Thinners
- Set professional spray gun to between 25/35 psi (approximately 2 Bar).
- Use a full fan spray at maximum spray volume.
- Apply 3-4 thin coats in quick succession allowing approximately 1 hour between coats. The final coat should be sprayed heavily enough to flow to a glossy finish avoiding runs and sags.

Airless Spray

- If necessary Thin Hammerite metal finish with 15% Hammerite Brush Cleaner and Thinners
- Fluid pressure: 2500 - 3000 psi (approximately 170 Bar).
- Nozzle size: 375-500 microns/0.015 - 0.020".
- Apply 2-3 coats, leaving each coat for approximately 1 hour or until it is touch dry before applying further coats.

For both conventional spray and airless spray:

- Shake spray gun before and during use to ensure an even colour.
- For best results use only Hammerite Brush Cleaner and Thinners.

Aerosol - Suitable for touch up/small applications.

- Store aerosol at room temperature for two hours prior to use.
- Shake can vigorously for a full three minutes AFTER the agitator ball is heard. Use a vertical rather than a horizontal motion.
- Apply light even coats from a distance of approximately 15 cms (6"). To avoid runs and sags keep the aerosol moving. Do not concentrate the spray in any one spot.
- Several thin coats are recommended, particularly on intricate and vertical surfaces. Allow approximately 15 minutes between coats.
- To avoid blockages, invert can and spray for two seconds between coats and after final use.

HOW TO ENSURE MAXIMUM PERFORMANCE WHEN SPRAY FINISHING

Problem	Cause	Remedy
1. Colours or shade varies.	Pigment settling in gun.	Shake gun more frequently and apply further coats.
2. Rough 'sandpapery' appearance lacking gloss.	Paint drying too quickly. Gun pressure may be too high.	Check for blocked jets or air vents in container. Reduce gun pressure.
3. Excessive consumption.	Pressure too high causing 'bounce'. Conditions too windy.	Reduce gun pressure. Wait for still conditions.
4. Paint runs.	Excessive thickness in one coat.	If not too severe wait 60 minutes and re-spray. If very bad, allow to full dry, level off with emery and re-spray
Hammered Finish Only		
5. Pattern very small or no pattern at all.	Final coat too thin.	Apply a thicker coat.
6. Surface is uneven with pin-holes or craters.	Temperature too low causing pattern drift.	Minimum recommended application temperature 10°C (50°F).

11. DRYING TIME

Touch/Surface Dry	2 hours approximately
Intercoat Period	After 4 hours

Note: Times may change depending on weather conditions

12. CLEANING EQUIPMENT

Use Hammerite Brush Cleaner.

13. SHELF LIFE AND STORAGE CONDITIONS

Tins

Minimum two years at 20°C (70°F) stored in original unopened containers. Hammerite paint should be stored in a dry, well ventilated area. Protect from extremes of temperature, ie frost and strong sunlight.

Aerosol

Minimum two years at 20°C (70°F) in original unopened containers. Pressurised container - protect from sunlight and do not expose to temperatures exceeding 50°C (120°F). Do not pierce or burn even after use.

14. CORROSION RESISTANCE

Passes 1600hours (8 year equivalent) ASTM B117 1973 at 100 microns dry film thickness ASTM D609, Type2 A366 steel panels.

15. IMPACT RESISTANCE

Passes 15cm (face) BS3900, E7 falling ball 15"/lb 7 days at 100 microns dry film thickness.

16. ADHESION

Passes BS 3900 E6, 7 days at 100 microns dry film thickness.

17. CHEMICAL RESISTANCE

Resists splashing by dilute acids/alkalis (10% max), petrol, diesel and all common building materials when fully cured.

18. TEMPERATURE RESISTANCE

Limits: Minus 20°C (-4°F) to 150°C (300°F) maximum intermittent when fully cured. Continuous 80°C (180°F) when fully cured.

Note: Colours may fade after prolonged exposure at temperatures exceeding 50°C (120°F).

19. VISCOSITY

5.5 poise - 8.0 poise at 25°C (ICI cone and plate viscometer) depending on colour/finish.

20. SPECIFIC GRAVITY

0.96 - 1.10 at 20°C depending on colour/finish.

21. UV RESISTANCE

Hammerite will resist the effects of UV damage. Resistance time could be reduced in hot climates or south facing aspects where the extremes of UV and temperature are present.

Note: All decorative alkyd based paints will fade or chalk when exposed to heat and UV radiation.

22. SERVICE LIMITATIONS

- Not suitable for use on equipment which may operate at 150°C (300°F) or above.
- Not suitable for use in contact with drinking water or foodstuffs.
- Not suitable for permanent immersion.

23. VOC LEVEL

Hammerite conforms to EU Directive 2004/42/CE for VOC. The products shown above are classified as Category A/i 600g/l (2007) / 500g/l (2010).

The product contains maximum of 499 g/l.

24. DISCLAIMER

To the best of our knowledge and belief the information given in this technical data sheet is accurate at the date of issue. It is the user's responsibility to satisfy themselves as to the application of the product and/or recommendations given for users particular use of Hammerite Metal Paint. This technical data sheet should be read in conjunction with the Hammerite Metal Paint materials safety data sheet SDSHM101 (12/2005).

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