

#### Rail

Product reference guide USA, Canada and Mexico

#### Protecting your investments

This overview presents paints designated for anti-corrosion protection, produced at our state-of-the-art manufacturing sites. These products are widely available. To obtain detailed information, specifications and pricing for your project, please contact your local sales representative or local Hempel office.

We are a world-leading coatings supplier founded in 1915 by J.C. Hempel. Over the years we have expanded our original product portfolio and services into many coatings and markets. The company has grown to become the largest independent supplier of coatings for the rail, protective, marine, container, yacht and decorative market segments.

At Hempel, we know that high-quality coatings and a superior service make the difference for railcar owners and transporters. With more than 30 years of experience in the Rail industry and over 100 years as a coatings manufacturer, we can offer the right product to withstand environmental elements and corrosion for any railcar, alongside superior coatings and linings for retaining product purity.

We provide a full range of high-performance protective coatings and exceptional technical service, helping our customers keep assets safe, reduce maintenance costs and comply with health and environmental regulations.

Designed with our customers in mind, whether you need coatings for new car build or maintenance. We offer solutions for all types of railcars including; tank cars, hopper cars, boxcars, covered hopper cars, gondolas and flatcars.

We know that new regulations create new requirements for our customers. That's why our teams work together to ensure we keep up to date with new trends and market changes. This means we can provide you with the right coating solution - not only for today, but also for the future.

For further information please visit us at hempel.us or contact your local Hempel representative.

Key





Plural

component







Airless sprav

Rollei (touch ups) airless spray



Plural component airless spray (heated)



Rail product reference guide

LD LMT 190800 LB 85550 KG IT WT 72200 LB 32750 KG



### Primers

Product	Quality code	Description	VS%	VOC	Rec DFT	Standard colors	Finish	Theoretical spreading rate	Components	Mixing ratio	Pot life @ 20°C/68°F	Dry-to-touch @20°C/68°F	Application method	Certificates / approvals
Epoxy primers														
Hempadur Mastic	45880	Polyamide adduct cured epoxy. Self priming high-solids coating which forms a hard and tough surface and has good wetting properties and low temperature curing. A surface tolerant paint which may be used as an intermediate or finishing coat in a heavy-duty paint system where low VOC and high film build are required.	80%	216 g/L; 1.8 lb/gal	125 μm; 5 mils	01410	Semi- gloss	6.4 m²/L - 125 μm; 256.6 sqft/gal - 5 mils	2	3:1	1 hrs	4 hrs	<b>? 4 7</b> * *	Meets FDA: Section 175.300 Dry Foodstuff
Hempadur Mastic	45881	Polyamide adduct cured epoxy. Self-primed high-solids coating which forms a hard and tough surface and has good wetting properties. A surface tolerant paint which may be used as an intermediate or finishing coat in a heavy-duty paint system where low VOC and high film build are required.	80%	218 g/L; 1.8 lb/gal	125 µm; 5 mils	01410	Semi- gloss	6.4 m²/L - 125 μm; 256.6 sqft/gal - 5 mils	2	3:1	1.5 hr	3 hrs	<b>~ 7 7</b> *	Meets FDA: Section 175.300 Dry Foodstuff
Acrylic WB prime	ers													
Hempel's Primer	180AM	Acrylic waterborne with good anticorrosive properties. For use in waterborne paint systems on interior and exterior steelwork in mildly to moderately corrosive environments. Also ideal for under jacket and rail car chassis.	54%	0 g/L; 0 lb/gal	50 μm; 2 mils	62310	Flat	10.8 m²/L - 50 μm; 433 sqft/gal - 2 mils	1	N/A	N/A	30 min	<b>~ <del>-</del> 76</b> *	N/A

Data may vary based on product customization, various finishes available for customized products.

### Finishing coats -Exteriors

Product	Quality code	Description	VS%	VOC	Rec DFT	Standard colors	Finish	Theoretical spreading rate	Components	Mixing ratio	Pot life @ 20°C/68°F	Dry-to-touch @20°C/68°F	Application method	Certificates / approvals
Finishing coats Hempatop Direct 460	460AM	High-solids polyamide cured epoxy coating. Forms a tough, hard wearing coating with good resistance to water and petroleum products. Excellent resistance to UV exposure and exhibits excellent gloss and color retention for exterior applications compared to traditional epoxy coatings. For exterior or interior applications on rail cars as one coat DTM application. Also recommended where low VOC and low HAPS are desired.	78%	<200 g/L; 1.89 lbs/gal	100 µm 4 mils	1000H 1115H 1770H 1999H *	Glossy	4.0 m²/L - 175 μm; 183 sqft/gal - 7 mils	2	1:1	2 hrs	3 hrs	<b>? ₹ 7</b> 6* ₽	Meets FDA: Section 175.300 - Box cars dry foods and paper cargo
Hempel's Epoxy	374US	High-solids, high-build, polyamine cured epoxy. For use as a self-primed paint system where low-VOC and HAPS content is required.	96%	45 g/L; 0.37 lbs/gal	150 μm 6 mils	1115H 1770H 1999H 5063H *	High gloss	6.4 m²/L - 150 μm; 257 sqft/gal - 6 mils	2	3:1	30 min	7 hrs	<b>7 ₽ ₽</b>	N/A
Hempathane HS	55610	Polyurethane. VOC compliant, high-build finishing coat or direct-to-metal coating for protection of structural steel in corrosive environments. Contains zinc phosphate.	67%	337 g/L; 2.8 lbs/gal	100 µm 4 mils	1000H 1115H 17700 1999H *	Glossy	6.7 m²/L - 100 μm; 268.7 sqft/gal - 4 mils	2	7:1	2 hrs	5 hrs	<b>ੵੵਜ਼ੵ੶ਲ਼ੑ</b> ਃ ₽	N/A
Hempatop Finish 620	559AM	Acrylic urethane enamel with excellent gloss and color retention. It is resistant to water, impact and abrasion. Easy to clean. Features: VOC- compliant, superior finishing coat, protection of structural steel, resistant in highly corrosive environments.	65%	312 g/L; 2.6 lbs/gal	50 µm 2 mils	10000 11150 17700 19990 50600 *	High gloss	26.0 m²/L – 25 µm; 1042 sqft/gal - 1 mil	2	4:1	1.5 hrs	8 hrs	<b>┌╴╡╶┰</b> ╗╵ ♣╡	N/A

Data may vary based on product customization, various finishes available for customized products.

\* May be available in other colors.

### Interiors

Product Interior coatings	code	Description	VS%	VOC	Rec DFT	Standard colors	Finish	Theoretical spreading rate	Components	Mixing ratio		Dry-to-touch @20°C/68°F	Application method	Certificates / approvals
Hempel's Epoxy	35480	Modified, high-solids epoxy specially formulated as a lining in hopper cars. It forms a tough, abrasion-resistant coating with exceptional flexibility and chemical resistance.	63%	318 g/L; 2.5 lbs/gal	2x 125 μm 5 mils	01950 A3030	Semi- gloss	4.2 m²/L - 150 μm; 205.3 sqft/gal - 5 mils	2	1:1	6 hrs	4 hrs	<b>? ₽. 7</b> 5* ♣	Meets FDA: Section 175.300 - Dry Foodstuff, plastic pellets
Hempadur FX4	37300	Amine-cured, solvent-free epoxy coating which cures to a strong and smooth lining. For use as a one coat epoxy that can be recoated. Great history transporting flour, sugar, starch, potash, salt, plastic pellets, etc.	96%	41 g/L; 0.3 lbs/gal	250 μm 10 mils	1U083 37900	Glossy	3.8 m²/L - 250 μm; 156.4 sqft/gal - 10 mils	2	1:1	30 min	12 hrs		Meets FDA: Section 175.300 - Dry Foodstuff, plastic pellets, liquid food
Hempadur BPA Free	37301	Amine-cured, solvent-free epoxy coating which cures to a strong and smooth lining. It is Bisphenol A epoxy resin free. For use as a one- coat system on internal surfaces of rail cars transporting liquid sugars, bulk quantities of dry food and/or plastic pellets for the manufacturing of food-contact materials.	96%	36 g/L; 0.3 lbs/gal	250 μm 10 mils	3U090	Glossy	4 m²/L - 250 μm; 156.4 sqft/gal - 10 mils	2	1:1	30 min	12 hrs		Meets FDA: Section 175.300 - Dry Foodstuff, plastic pellets, liquid food

## Interiors

Product Interior coating	Quality code	Description	VS%	VOC	Rec DFT	Standard colors	Finish	Theoretical spreading rate	Components	Mixing ratio	Pot life @ 20°C/68°F		Application method	Certificates / approvals
Hempadur		Amine adduct cured phenolic epoxy (Novolac) paint, which cures to a coating with excellent resistance to a wide range of chemicals. For use as an internal lining for vessel's cargo tanks, storage tanks and rail cars.	68%	322 g/L; 2.7 lbs/gal	150 µm 6 mils - 12 total	50900 11630	Flat	6.8 m²/L - 100 μm; 184.6 sqft/gal - 6 mils	2	8.9:1.1	3 hrs	4-6 hrs	<b>? 4 7</b> 5*	Meets FDA: Section 175.300 - Dry Foodstuff, plastic pellets, liquid food
Hempadur	85671	Amine adduct cured phenolic epoxy (Novolac) paint. Very good adhesion and high temperature, water and chemical resistance. For use as an interior lining in tanks, pipelines, rail cars etc. for hot water, brine, crude oil, vegetable oils and other chemicals as per the Chemical resistance guide. Corn syrup. Molasses, feed stock and other liquid foods products.	68%	317 g/L; 2.6 lbs/gal	150 µm 6 mils - 12 total	11630 50900 11150	Flat	6.8 m²/L - 100 μm 184.6 sqft/gal - 6 mils	2	8.8:1.2	3 hrs	4-6 hrs	<b>? 4 7</b> 6*	Meets FDA: Section 175.300 - Dry Foodstuff, plastic pellets, liquid food
Hempel's Epoxy	554US	High-solids, polyamide cured, epoxy product. It forms a tough, hard wearing coating with good resistance to water and petroleum products. Use for long-term protection of steel and other structural materials under severe service conditions. Can be used as a lining or exterior coating on pipes, rail cars, or according to spec.	70%	265 g/L; 2.2 lbs/gal	125 µm 5 mils	02490 03630 19990	Semi- gloss	5.6 m²/L - 125 μms 224 sqft/gal - 5 mils	2	1:1	3 hrs	7-9 hrs	<b>₽</b> . <b>7</b> .	Meets FDA: Section 175.300 - Dry Foodstuff, plastic pellets

### Interiors

Product Interior coating	Quality code	Description	VS%	VOC	Rec DFT	Standard colors	Finish	Theoretical spreading rate	Components	Mixing ratio		Dry-to-touch @20°C/68°F	Application method	Certificates / approvals
Hempaline Defend 630		Solvent free high performance epoxy phenolic tank lining with excellent chemical resistance to a wide range of chemicals and solvents including crude oil, alcohols, fuels, gasoline blends, select acidic and caustic chemicals. Intended as a high performance tank lining for the storage of a wide range of petrochemicals including (but not limited to) crude oil up to 93°C /200°F, MTBE, produced water, alcohols, aromatic and aliphatic solvents, aviation fuels, gasoline blends, select acidic and caustic chemicals.	100%	21 g/L; 0.2 lbs/gal	400 μm 16 mils	36641	High- gloss	2 m²/L - 500 μm 100.25 sqft/gal - 16 mils	2	3:1	40min	8 hrs	<b>▞▝₹ਾ</b>	Meets FDA: Section 175.300 - Dry Foodstuff and liquid food
Hempaline Defend 740	17120	High performance Novolac glass flake vinyl ester tank lining with excellent resistance to organic and inorganic acid solutions, high temperatures and abrasive conditions.	100%	323 g/L; 2.7 lbs/gal	500 μm 20 mils	15970 16500	Semi- gloss	1.8 m²/L - 500 μm 72.2 sqft/gal - 20 mils	2	49:1	35-45 min	4 hrs	<b>, , , , , , , , , , , , , , , , , , , </b>	N/A
Heresite P-403L	403AM	Highly chemical resistant baked phenolic coating.	49%	405 g/L; 3.38 lbs/ gal	125-175 μm 5-7 mils	67280	Semi- gloss	750 sqft/gal	1	N/A	N/A	N/A	<b>; 7 76</b> *	Meets FDA: Section 175.300 - Dry Foodstuff and liquid food

# Specialty items

Product	Quality code	Description	VS%	VOC	Rec DFT	Standard colors	Finish	Theoretical spreading rate	Components	Mixing ratio		Dry-to-touch @20°C/68°F	Application method	Certificates / approvals
Specialty items														
Hempel's Non-skid	418US	An acrylic coating with anticorrosive pigments. Physically drying. Resistant to salt water, splashes of mineral oils, aliphatic solvents, petrol, and a wide range of chemicals. Recommended use: As a non-skid coating for walking areas on the tops of rail cars and other areas where a non-skid finish is required.	58%	369 g/L; 3.06 lbs/gal	200 µm 8 mils	10000 12170 19990	Flat	1.2 m²/L - 500 μm 47 sqft/gal - 20 mils	1	N/A	N/A	4 hrs		N/A
Hempel's Tool Cleaner	99610	A blend of strong solvents for cleaning of tools that have been used for mixing or application of two-component epoxy products. It has better cleaning properties than epoxy thinners. Does not contain chlorinated solvent. Recommended use: For cleaning of brushes, paint rollers, spray equipment and other tools which have been used for mixing or application of Hempadur products. Do not use as thinner for any paint.	0	710 g/L; 5.9 lbs/gal	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hempel's Light Clean	99350	Solvent-free concentrated alkaline cleaner based on emulsifiers, surface-active agents and water. For cleaning and degreasing of painted surfaces before recoating. Especially suited for removal of dirt, soot and U.V. light degraded surface-layers. Suited for use in high pressure cleaning equipment.	0	0 g/L; 0 lbs/gal	N/A	00000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

As a world-leading supplier of trusted coating solutions, Hempel is a global company with strong values, working with customers in the protective, marine, decorative, container and yacht industries. Hempel factories, R&D centers and stock points are established in every region.

Across the globe, Hempel's coatings protect surfaces, structures and equipment. They extend asset lifetimes, reduce maintenance costs and make homes and workplaces safer and more colorful. Hempel was founded in Copenhagen, Denmark in 1915. It is proudly owned by the Hempel Foundation, which ensures a solid economic base for the Hempel Group and supports cultural, social, humanitarian and scientific purposes around the world.

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