

OEM & EQUIPMENT COATINGS

Six coating systems for what you manufacture.
Formulated and made in South Africa.

OEM & EQUIPMENT COATINGS

FAST-CURE · DIRECT-TO-METAL · WATERBORNE · UV-STABLE


SPECIALIZED
COATING SYSTEMS



SPECIALIZED FORMULATION.
SPECIFIED PERFORMANCE.

COATINGS FOR WHAT YOU BUILD

You do not sell coatings. You sell tanks, trailers, transformers, conveyors, frames, valves, pumps, structures. The coating is **the last thing you put on** them and **the first thing your customer sees**.

It is also the thing that decides how the unit looks in year five, whether it comes back under warranty, and how many hours it sat in your yard waiting to dry.

Specialized Coating Systems has manufactured protective coatings in Johannesburg since 1997. We formulate and produce everything in this brochure ourselves — which means the system can be matched to your line, your throughput, your substrate and your customer's specification, in the batch size you actually need.

This brochure sets out six systems built for OEM and equipment manufacture. Each one exists because a real production line needed something the shelf did not have.

Six systems, four families, and the surface preparation, colour and application equipment that go with them. Pages 5 to 14 set out the systems; pages 15 to 18 set out everything around them.

1997

FOUNDED IN JOHANNESBURG

6

OEM COATING SYSTEMS

4

SYSTEM FAMILIES

WHAT THESE COATINGS ARE FOR

Almost every OEM coating decision comes down to one of three pressures. Work out which one is yours, and the choice narrows from six systems to two or three.

01

THROUGHPUT

The coating is holding up the line. You need handling dry in hours, not overnight; ideally one product instead of three, and no mixing at the booth. With the quick-dry alkyd you trade some ultimate corrosion life for outright speed — and for equipment that lives indoors or in a mild inland climate, that is the right trade. The waterborne option in this family asks for no such trade.

DIRECT-TO-METAL
PAGES 5–7

02

COMPLIANCE & EXPOSURE

Solvent extraction, VOC limits, and isocyanate exposure monitoring are shaping what you are allowed to spray. Waterborne and isocyanate-free chemistry removes the problem at source rather than managing it with PPE — without giving up gloss, hardness or colour stability.

WATERBORNE PRODUCTION
LINE PAGES 08–09

03

SPECIFIED SERVICE LIFE

Your customer's engineer has written ISO 12944 into the order, or the unit is going somewhere aggressive — coastal, petrochemical, submerged. Now film build, primer chemistry and durability class are contractual, and the coating has to be documented as well as applied.

SPECIFIED CORROSION
PROTECTION PAGES 10–12
IMMERSION & LINING
PAGES 13–14

Not sure which pressure is yours?

Tell us the substrate, the environment and the line speed — we will specify it.

HOW TO READ A COATING SYSTEM

Five terms appear on every system page that follows. This is what they mean.

CLASS	ENVIRONMENT	SOUTH AFRICAN EXAMPLE
C2	Low	Dry inland sheds, heated warehouses
C3	Medium	Urban and light industrial, inland yards
C4	High	Industrial plant, chemical, near-coastal
C5	Very High	Coastal Durban and Cape Town, humidity with salt
Im1	Fresh water immersion	Potable and raw water tanks, submerged steel

Environment classification per **ISO 12944-2:2017**.

It sets the minimum system, and it is the single most important number in any specification.

In every case, the product Technical Data Sheet governs.

Ask us for the TDS pack — or scan the QR code to our website and visit the resources section to find the TDS you need.

TOTAL SYSTEM DFT

Dry Film Thickness (DFT) in microns (μm), the combined thickness once cured. A business card is roughly 300 μm . More microns generally means more protection, and always means more product, more time and more money. The right answer is the specified answer, not the highest one.

EXPECTED DURABILITY

Expected Durability per ISO 12944-1:2017, the expected **time to first major maintenance**. Not a warranty, and not the point at which the coating fails.

Low · Up to 7 Years

High · 15-25 Years

Medium · 7-15 Years

Very High · Beyond 25 Years

SURFACE PREPARATION

What has to happen to the steel before the first coat. Get this wrong and nothing above it matters.

GRADE	WHAT IT MEANS
SSPC-SP1	Solvent or detergent degrease. The first step on every system in this brochure.
Sa 2½ / SSPC-SP10	Abrasive blast to very-near-white metal. The grade every system in this brochure is specified to.
Surface Profile	The peak-to-valley roughness the blast leaves behind, in microns. Thin films want a fine profile, heavy films want a coarse one.

VOLUME SOLIDS & THEORETICAL YIELD

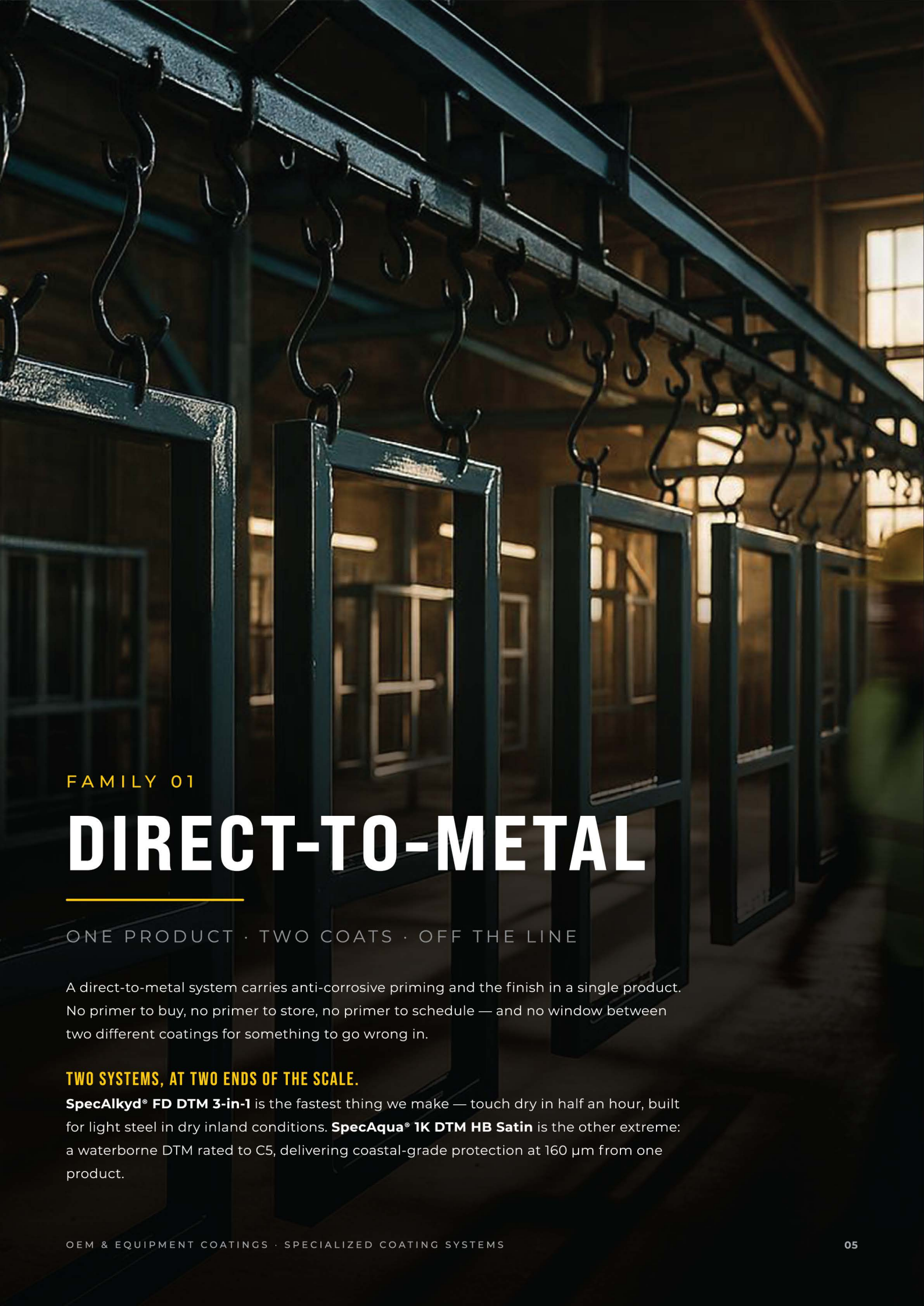
Volume Solids is the percentage of wet paint that stays on the steel. Theoretical Yield (m^2/L) is $\text{Volume Solids} \times 10 \div \text{DFT}$. Real yield is always lower; allow for overspray, profile, geometry and wastage. Every yield figure here is theoretical.

CHOOSE YOUR SYSTEM

	SPECALKYD® FD DTM 3-IN-1	SPECAQUA® 1K DTM HB	STEELGUARD® WB DTM PRIMER + STEELGUARD® DURACOAT XT	EPOXY SURTOL ALUMINIUM FAST + PU DTM FLEXI HB	EPOXY MULTI ZINC + EPOXY MULTI MIO + PU 55 HB TOPCOAT	EPOXY 8910 PW
SYSTEM CODE	IPC-DTM-CC-2L-01	IPC-DTM-CC-2L-02	IPC-STR-CC-2L-01	IPC-ST-CC-2L-01	IPC-STR-CC-3L-01	IPC-PT-IC-2L-01
FAMILY	Direct-to-Metal FAMILY 01	Direct-to-Metal FAMILY 01	Waterborne line FAMILY 02	Specified FAMILY 03	Specified FAMILY 03	Immersion FAMILY 04
COATS	2	2	2	2	3	2
TOTAL DFT	80 µm	160 µm	150-180 µm	135 µm	250 µm	400 µm
ENVIRONMENT	C2 - C3	C5	C4	C3	C4 - C5	Im1
CARRIER	Solventborne	Waterborne	Waterborne	Solventborne	Solventborne	High solids (86%)
SEPARATE PRIMER	No	No	Yes	Yes	Yes	No — self-priming
SURFACE PREP	SSPC-SP1 & Sa 2½	SSPC-SP1 & Sa 2½	SSPC-SP1 & Sa 2½	SSPC-SP1 & Sa 2½ or Mech. Abrade	SSPC-SP1 & Sa 2½	SSPC-SP1 & Sa 2.5
OVERCOAT FROM	3-5 h @ 23 °C	4 h @ 25 °C	Same shift, forced flash-off	4 h @ 20 °C	4 h @ 20 °C	6 h @ 25 °C
ISOCYANATE-FREE*	Yes	Yes	Yes	No	No	Yes
BEST FOR	Fastest turnaround on light steel	Coastal-grade protection from a single product	Volume lines under VOC and exposure pressure	Fast-track structural and mobile plant	Coastal and heavy industrial to spec	Potable and raw water contact

Still deciding?

Bring us the substrate, the environment and the line speed. We will specify it — see page 15.



FAMILY 01

DIRECT-TO-METAL

ONE PRODUCT · TWO COATS · OFF THE LINE

A direct-to-metal system carries anti-corrosive priming and the finish in a single product. No primer to buy, no primer to store, no primer to schedule — and no window between two different coatings for something to go wrong in.

TWO SYSTEMS, AT TWO ENDS OF THE SCALE.

SpecAlkyd® FD DTM 3-in-1 is the fastest thing we make — touch dry in half an hour, built for light steel in dry inland conditions. **SpecAqua® 1K DTM HB Satin** is the other extreme: a waterborne DTM rated to C5, delivering coastal-grade protection at 160 µm from one product.

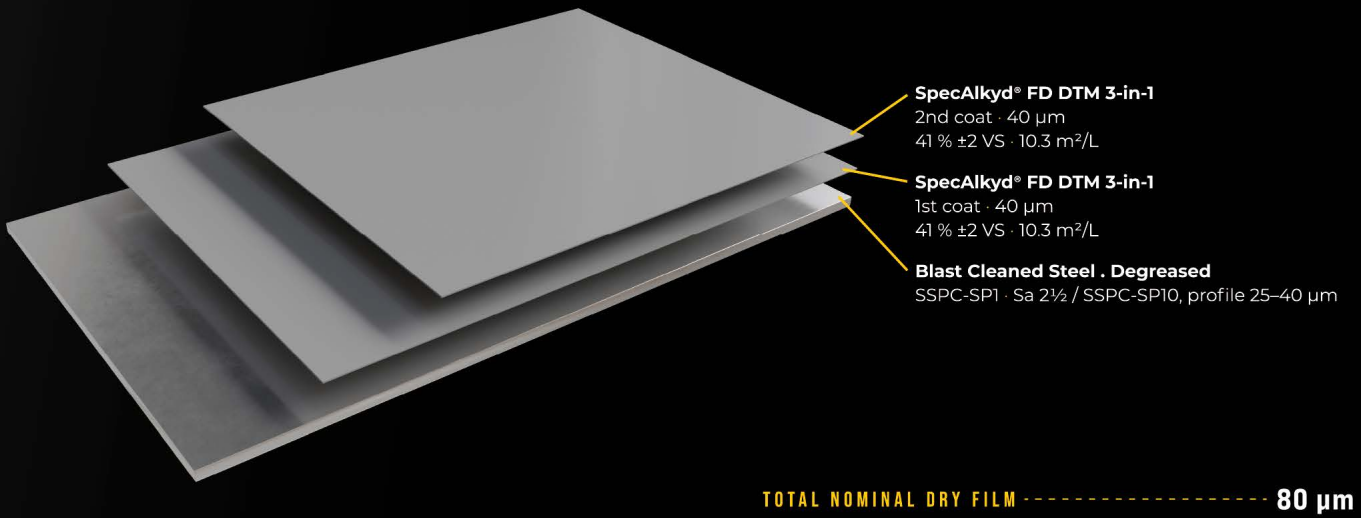
SPEALKYD® FD DTM 3-IN-1 GLOSS

IPC-DTM-CC-2L-01-SS · OEM — QUICK-DRY DIRECT-TO-METAL ENAMEL SYSTEM

DESCRIPTION

SpecAlkyd® FD DTM 3-in-1 is a single-component, solvent-based quick-drying modified acrylate alkyd enamel that carries anti-rust, primer and topcoat in one product. Applied direct to metal in two coats, it delivers maximum production throughput with no mixing, rapid dry at ambient temperature and no baking required — direct to mild steel, stainless steel, galvanized iron, aluminium, zinc, copper and brass.

SYSTEM BUILD



 TOUCH DRY 15–30 MIN	 ANTI-RUST · PRIMER · TOPCOAT	 DIRECT TO SIX METALS	 BUILT FOR LINE SPEED
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INTENDED USES & BENEFITS

- Rapid-drying OEM production lines — fast handling and turnaround
- General fabrication, light structural steel, metal furniture and framework
- Direct to multiple metals without a separate primer
- Not intended for aggressive corrosive environments or heavily pitted steel

AT A GLANCE

System code	IPC-DTM-CC-2L-01-SS
Total system DFT	80 µm
Environment · ISO 12944-2:2017	C2 - C3
Expected durability · C2	Medium · 7–15 years
Surface preparation grade	SSPC-SP1 & Sa 2½
Overcoat from	3–5 h @ 23 °C
Full cure	24 h @ 23 °C

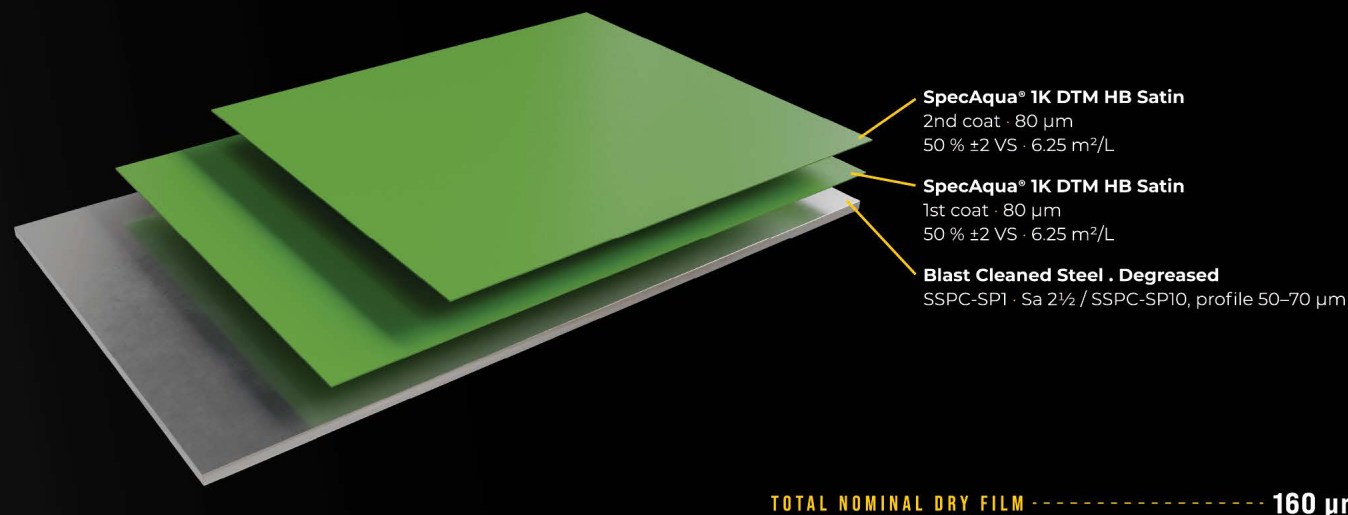
SPECAQUA® 1K DTM HB SATIN

IPC-DTM-CC-2L-02-SS · OEM — WATERBORNE 1K DIRECT-TO-METAL HIGH-CORROSIVITY SYSTEM

DESCRIPTION

SpecAqua® 1K DTM HB Satin is a single-component, high-build, water-based hydrophobic direct-to-metal primer/finish applied in two coats. A latest-generation compact polymer matrix binder with metal-free organic corrosion inhibition creates a flexible, super-hydrophobic satin film that achieves corrosion class C5 — very high protection — at a fraction of the film build of conventional epoxy/polyurethane systems. Extremely UV stable and weather resistant, metal-free and low VOC.

SYSTEM BUILD



SUPER-HYDROPHOBIC FILM



WATERBORNE · LOW VOC



C5 VERY HIGH PROTECTION



EXTREMELY UV STABLE

INTENDED USES & BENEFITS

Mild steel, stainless, galvanized, zinc-plated and zinc-phosphated steel

One-coat-system economics — fewer working hours, lower film weight

Excellent coverage of nuts, bolts and welds; crack and peel resistant

Topcoatable with SpecAqua 2K PUD where enhanced mechanical/chemical resistance is needed

AT A GLANCE

System code ----- IPC-DTM-CC-2L-02-SS

Total system DFT ----- **160 µm**

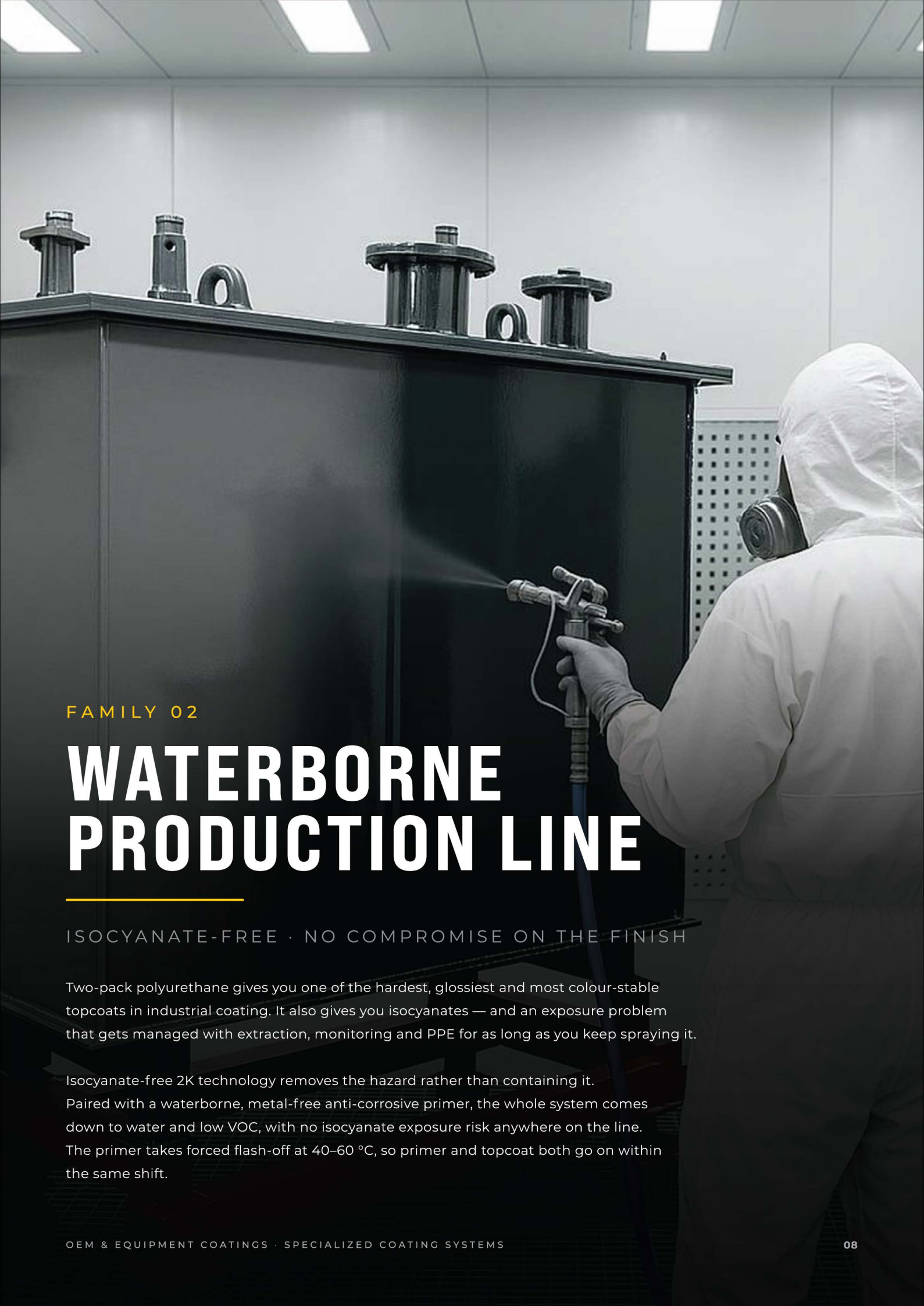
Environment · ISO 12944-2:2017 ----- **C5**

Single coat at 80 µm ----- **C4 – Long**

Expected durability ----- **High** — TDS-rated 'Long'

Surface preparation grade ----- **SSPC-SP1 & Sa 2½**

Overcoat from ----- **4 h @ 25 °C**



FAMILY 02

WATERBORNE PRODUCTION LINE

ISOCYANATE-FREE · NO COMPROMISE ON THE FINISH

Two-pack polyurethane gives you one of the hardest, glossiest and most colour-stable topcoats in industrial coating. It also gives you isocyanates — and an exposure problem that gets managed with extraction, monitoring and PPE for as long as you keep spraying it.

Isocyanate-free 2K technology removes the hazard rather than containing it. Paired with a waterborne, metal-free anti-corrosive primer, the whole system comes down to water and low VOC, with no isocyanate exposure risk anywhere on the line. The primer takes forced flash-off at 40–60 °C, so primer and topcoat both go on within the same shift.

STEELGUARD® WB DTM ANTI-CORROSIVE PRIMER + STEELGUARD® DURACOAT XT GLOSS (2K ISO FREE)

IPC-STR-CC-2L-01-SS · OEM — WATERBORNE TWO-COAT PRODUCTION LINE SYSTEM ·
2K ISOCYANATE-FREE

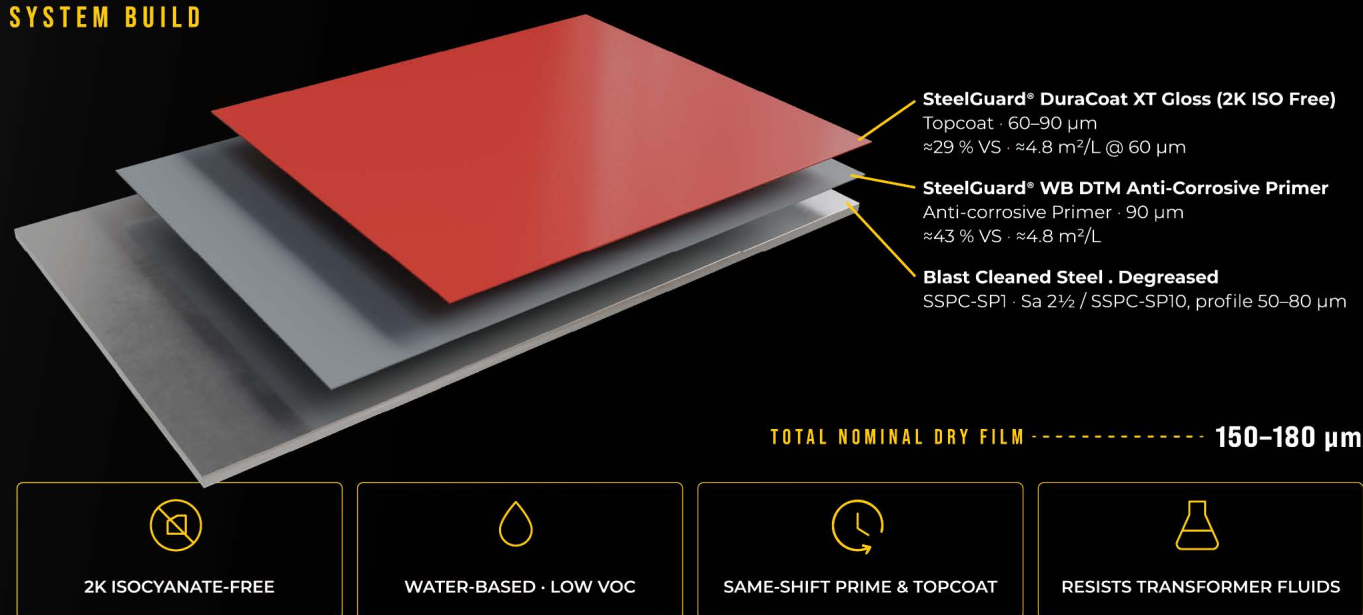
DESCRIPTION

A two-coat waterborne system engineered for high-volume industrial steel production lines. A hydrophobic, metal-free organically-inhibited anti-corrosive primer carries the corrosion protection; the isocyanate-free two-pack gloss topcoat adds hardness, chemical resistance and UV-stable colour — with no isocyanate exposure risk for line operators and same-shift overcoating under forced flash-off at 40–60 °C.

SteelGuard® WB DTM Anti-Corrosive Primer — Single-component, water-based hydrophobic primer on latest-generation compact polymer matrix binder with metal-free organic corrosion inhibition; binder/inhibitor platform engineered for salt spray resistance in excess of 1,440 hours.

SteelGuard® DuraCoat XT Gloss — Two-component water-based high gloss topcoat with isocyanate-free curing technology; extended working life after activation, enhanced resistance to ester and mineral transformer fluids.

SYSTEM BUILD



INTENDED USES & BENEFITS

Electrical transformer tanks, enclosures
and fabricated steelwork

High-volume production lines —
same-shift prime and topcoat

Water-based, low VOC, isocyanate-free —
simplified operator health and safety

Surfaces exposed to transformer ester fluids,
mineral oils and cleaning agents

AT A GLANCE

System code ----- IPC-STR-CC-2L-01-SS

Total system DFT ----- **150–180 µm**

Curing technology ----- **2K isocyanate-free**

Environment ----- C4 service

Verification status ----- ISO 9227 in progress

Surface preparation grade ----- SSPC-SP1 & Sa 2½

Overcoat ----- Same shift, forced flash-off 40–60 °C



FAMILY 03

SPECIFIED CORROSION PROTECTION

WHEN ISO 12944 IS IN THE ORDER

Once a specification names a corrosivity class and a durability period, the coating stops being a finish and becomes a deliverable. Film build is measured. Primer chemistry is checked. Surface preparation is inspected and signed for.

Epoxy Surtol Aluminium Fast + PU DTM Flexi HB Gloss is the fast-track two-coat answer for C3 — a surface-tolerant primer that cures down to +5 °C, finished with a flexible aliphatic polyurethane, at 135 µm total. **Epoxy Multi Zinc + Multi MIO HB + PU 55 HB** is the full three-coat heavy-duty build for C4 and C5 — galvanic zinc at the steel, micaceous iron oxide as barrier reinforcement, UV-stable polyurethane on top, 250 µm.

EPOXY SURTOL ALUMINIUM FAST + PU DTM FLEXI HB GLOSS

IPC-ST-CC-2L-01-SS · OEM — FAST-TRACK STRUCTURAL STEEL & EQUIPMENT SYSTEM

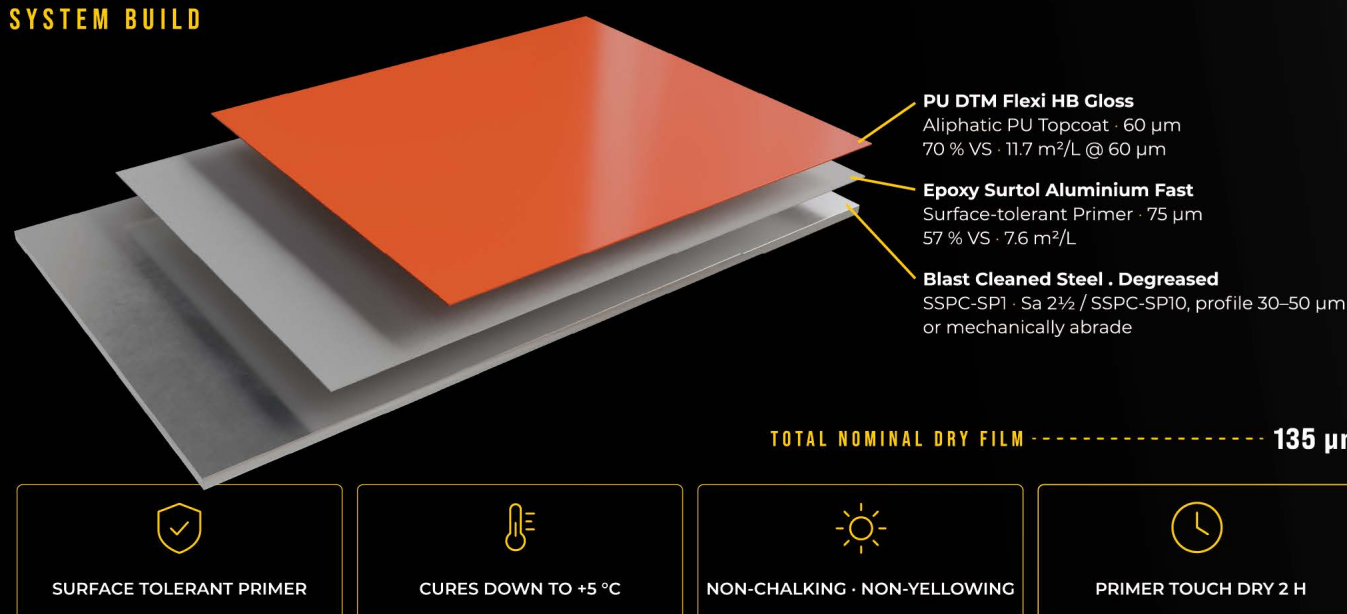
DESCRIPTION

A two-coat, fast-handling corrosion protection system for steel in inland industrial environments. A surface-tolerant, zinc phosphate and aluminium pigmented epoxy primer is finished with a flexible, highly UV-stable aliphatic polyurethane applied direct over the primer.

Epoxy Surtol Aluminium Fast — Two component, medium solids, polyamide cured, zinc phosphate & aluminium pigmented surface-tolerant epoxy primer. Cures down to +5 °C with a long overcoating window.

PU DTM Flexi HB Gloss — Two pack, aliphatic, high solids, flexible polyester-modified polyurethane finish; zinc phosphate pigmented, extremely UV and weather resistant, non-chalking and non-yellowing.

SYSTEM BUILD



INTENDED USES & BENEFITS

- Structural steel, steel roofing and cladding
- Agricultural, construction and earth-moving equipment
- Tank and pipe externals, processing equipment
- Fast production turnaround — primer touch dry in 2 h at 20 °C

AT A GLANCE

System code ----- IPC-ST-CC-2L-01-SS

Total system DFT ----- **135 µm**

Environment · ISO 12944-2:2017 ----- **C3**

Expected durability ----- **High · 15–25 years**

Surface preparation grade ----- **SSPC-SP1 & Sa 2½ or Mech. Abrade**

Primer overcoat from ----- **4 h @ 20 °C · max 7 days**

Topcoat overcoat from ----- **3 h @ 25 °C**

EPOXY MULTI ZINC + EPOXY MULTI MIO + PU 55 HB TOPCOAT

IPC-STR-CC-3L-01-SS · OEM — ZINC-RICH THREE-COAT SYSTEM · HIGH CORROSIVITY

DESCRIPTION

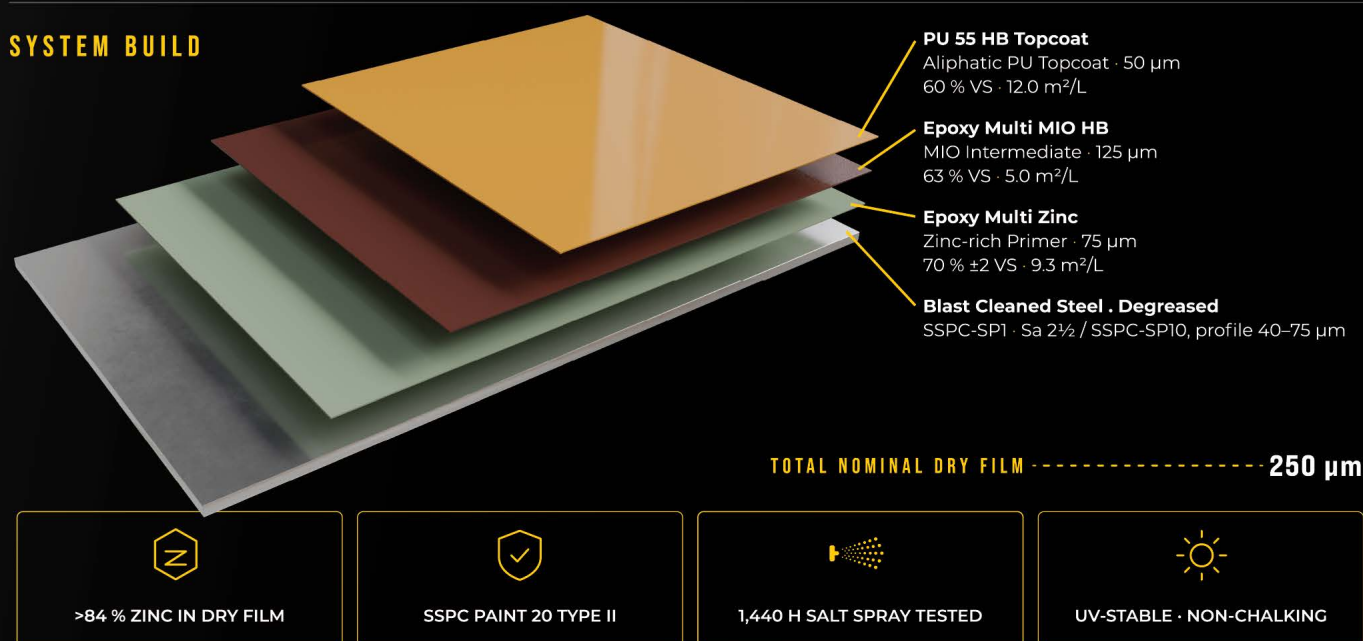
A full three-coat zinc / MIO / polyurethane system for aggressive industrial and coastal atmospheres. Metallic zinc provides galvanic protection at the steel surface, micaceous iron oxide provides barrier reinforcement, and an aliphatic polyurethane delivers UV-stable colour and gloss.

Epoxy Multi Zinc — Two component, high build, polyamide cured zinc-rich epoxy primer; >84% zinc in the dry film. Complies with SSPC Paint 20 Type II Level 2 and ISO 12944-5; salt spray 1,440 h certified (approved system).

Epoxy Multi MIO HB — Two component, high build micaceous iron oxide epoxy intermediate; enhanced resistance to water vapour transmission.

PU 55 HB Topcoat — Two pack, glossy aliphatic acrylic polyurethane topcoat with additional UV stabilisers; non-chalking, non-yellowing.

SYSTEM BUILD



INTENDED USES & BENEFITS

Offshore structures, petrochemical facilities,
pulp & paper plants

Bridges, power plants, coastal infrastructure

New construction and industrial maintenance

Factory priming with site completion —
fast handling

AT A GLANCE

System code ----- IPC-STR-CC-3L-01-SS

Total system DFT ----- **250 µm**

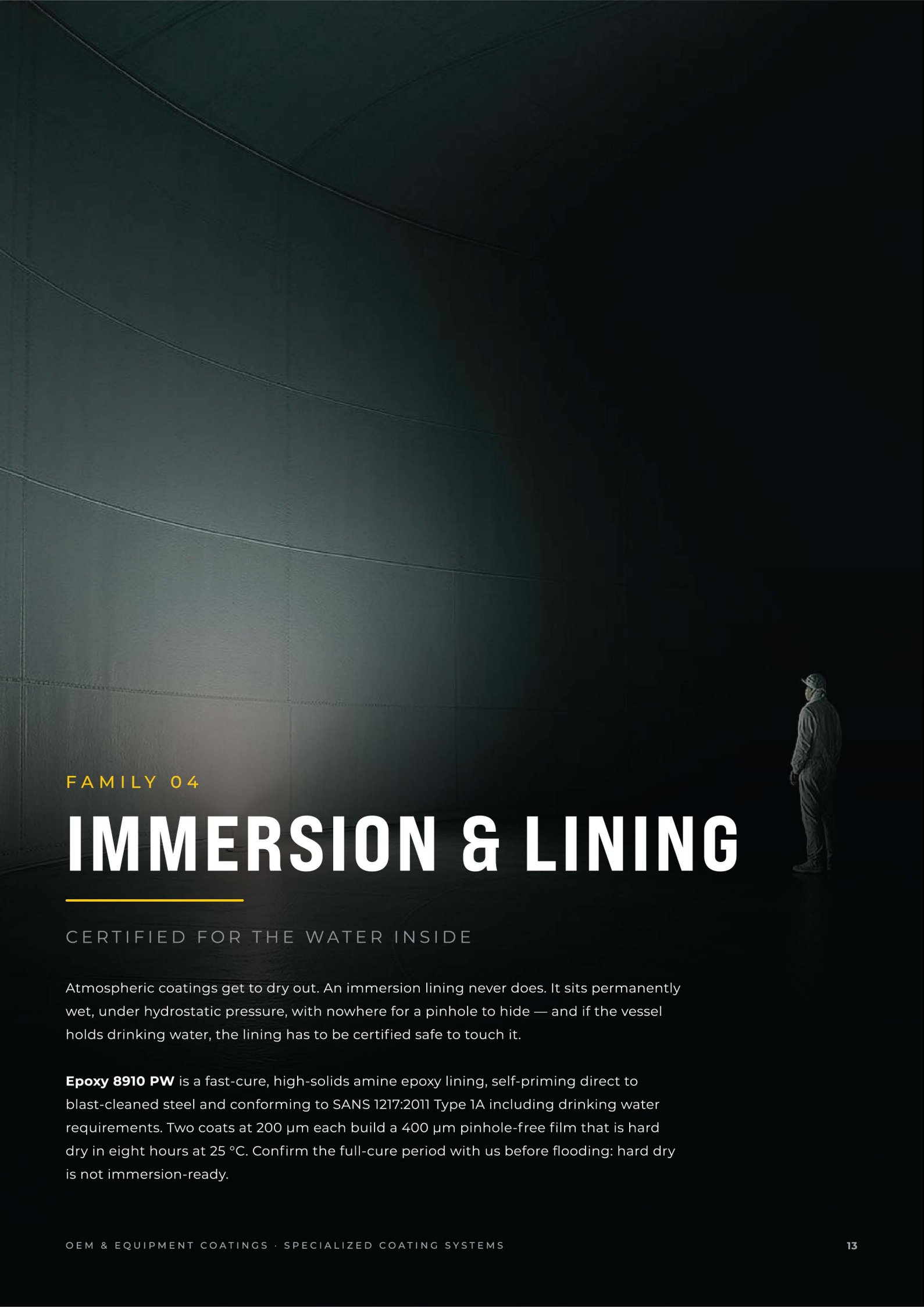
Environment · ISO 12944-2:2017 ----- **C4–C5**

Expected durability · C4 ----- **High · 15–25 years**

Expected durability · C5 ----- **Medium–High**

Surface preparation grade ----- **SSPC-SP1 & Sa 2½**

Zinc primer overcoat ----- **4 h @ 20 °C · max 3 months**

A person in a full-body protective suit and helmet stands on the right side of the frame, looking towards a large, dark, curved industrial structure that fills most of the background. The structure appears to be the interior of a large tank or vessel, with visible rivets and seams. The lighting is dramatic, with a bright light source from the left creating a strong glow and highlighting the texture of the structure.

FAMILY 04

IMMERSION & LINING

CERTIFIED FOR THE WATER INSIDE

Atmospheric coatings get to dry out. An immersion lining never does. It sits permanently wet, under hydrostatic pressure, with nowhere for a pinhole to hide — and if the vessel holds drinking water, the lining has to be certified safe to touch it.

Epoxy 8910 PW is a fast-cure, high-solids amine epoxy lining, self-priming direct to blast-cleaned steel and conforming to SANS 1217:2011 Type 1A including drinking water requirements. Two coats at 200 µm each build a 400 µm pinhole-free film that is hard dry in eight hours at 25 °C. Confirm the full-cure period with us before flooding: hard dry is not immersion-ready.

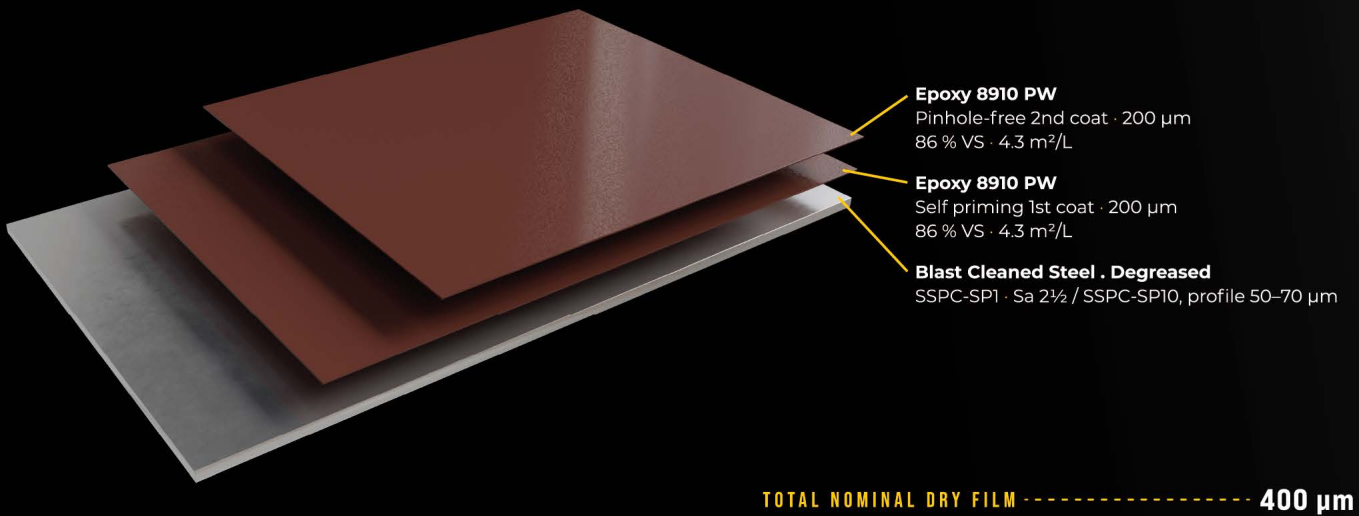
EPOXY 8910 PW

IPC-PT-IC-2L-01-SS · OEM — POTABLE WATER IMMERSION LINING SYSTEM · SANS 1217

DESCRIPTION

Epoxy 8910 PW is a two-component, high-solids, high-build amine-cured epoxy lining applied in two coats for potable and raw water immersion. Self-priming direct to blast-cleaned steel, with exceptional chemical resistance and rapid return to service — hard dry in 8 hours at 25 °C. Conforms to SANS 1217:2011 Type 1A lining, including drinking water requirements.

SYSTEM BUILD



 IMMERSION GRADE · IM1	 SANS 1217 TYPE 1A	 400 µm HIGH BUILD	 HARD DRY 8 H @ 25 °C
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INTENDED USES & BENEFITS

- Potable water steel pipelines, tanks and hydroelectric installations
- Cast iron valves, pumps, steel gates, screw pumps and sewage equipment
- Raw and treated water installations, cooling water ducts
- Mining applications — thickener tanks and rake arm linings

AT A GLANCE

System code	IPC-PT-IC-2L-01-SS
Total system DFT	400 µm
Environment · ISO 12944-2:2017	Im1
Standard	SANS 1217:2011 Type 1A
Expected durability	High · 15–25 years
Surface preparation grade	SSPC-SP1 & Sa 2½
Overcoat from	6 h @ 25 °C · max 28 days

IT STARTS WITH THE STEEL

Coating performance starts below the coating. We formulate and manufacture the preparation products too — degreasers, cleaners, rust removers and holding primers — so what goes on the steel and what goes under it come from the same factory.

HYDROSOLVE DEGREASER

Water-based degreaser that lifts oil, grease, cutting fluid and release agent off steel before any preparation begins. Contamination left on the surface is the most common cause of early coating failure — this is the step that removes it.

GALVANIZED IRON CLEANER

Purpose-made cleaner for new and weathered galvanizing. Strips zinc salts, white rust and mill passivation oils, leaving a clean, lightly keyed surface that coatings can grip.

RUST REMOVER GEL

Thickened gel that clings to vertical and overhead steel instead of running off. Removes light surface rust and flash rust where blasting is impractical — inside cabinets, around fittings, on assembled equipment.

pH NEUTRALIZER

Follows any acid cleaning or rust removal step. Neutralises residual acid and rinses clean, so nothing is left under the coating to attack the film from below.

EPOXY HOLDING PRIMER

Thin epoxy applied straight off the blast to hold the profile through fabrication, storage and transport. Keeps blasted steel workable for weeks instead of hours, and takes the specified system over the top without re-blasting.

SPECIFIED, SUPPORTED, SIGNED OFF

Choosing the system is the beginning. Everything below is included — there is no consulting fee.

01 • SYSTEM SPECIFICATION

Bring us the substrate, the service environment, the throughput target and any client specification.

We return a written coating specification referenced to ISO 12944 — surface preparation grade, layer build, DFT, overcoating windows and durability class, on SCS letterhead, suitable for submission to your customer's engineer.

02 • TECHNICAL DATA & DOCUMENTATION

Full TDS and SDS packs for every product in the system. Batch certification, salt spray and certification records where the product carries them.

03 • ON-SITE AND ONLINE SUPPORT

A technical representative on your floor for first application, applicator training, and DFT and adhesion verification.

04 • FORMULATION TO YOUR LINE

If none of the six systems fits, we adjust one. Custom batch sizes, adjusted dry times, modified gloss levels and bespoke colour — this is a manufacturing capability, not a favour.

ANY COLOUR YOU BUILD IN

Every atmospheric topcoat in this brochure is tintable to the **RAL Classic** range, with custom colour matching to your standard on request — including your own corporate colour held on file for repeat orders.

CLASSIC
RAL
COLOURS
+207

Aliphatic topcoats are non-chalking and non-yellowing in full South African sun.

Alkyd enamels are not; specify SpecAlkyd® for interiors and mild inland service only.

THE COATING AND THE KIT TO APPLY IT

GRACO®

SPRAY APPLICATION

Airless, air-assisted and plural-component spray equipment for high-build industrial coatings. The right pump, tip and hose configuration for the system you have specified — not a guess at it.

CLEMCO®

ABRASIVE BLASTING

Blast machines, nozzles, remote controls and operator safety equipment for reaching and holding a Sa 2½ profile. Sa 2½ leaves steel near-white and uniformly profiled — clean metal with a key for the coating to bite into. This is how you get there.

GMA ABRASIVE MEDIA

BLAST MEDIA

Abrasive media matched to the surface profile your specification calls for — from 30–50 µm on fast-track structural work, to 50–80 µm on production lines, to a sharp angular 50–70 µm for immersion linings.

Ask about a line audit.

We will look at your booth, your pump, your blast setup and your throughput target before recommending a system — because the best coating on the wrong equipment is still a rework.



SPECIALIZED COATING SYSTEMS

YOUR COMPLETE COATING SOLUTION, **UNDER ONE ROOF**

INDUSTRIAL & PROTECTIVE COATINGS

OEM & EQUIPMENT COATINGS

FAST-CURE · DIRECT-TO-METAL · WATERBORNE · UV-STABLE

SCAN FOR MORE INFORMATION



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ISO 9001 · ISO 14001

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All products shall be applied according to the instructions and within the application parameters given on the Speccoats™ Technical Data Sheet for each product — the TDS governs in any conflict. Expected durability is the time to first major maintenance per ISO 12944-1:2017 and is not a guarantee.