



GENERAL DESCRIPTION

ColoRite FluoroCarbon is a Paint system comprising hot-dip galvanized steel sheet with a minimum Zinc coating mass of 275 GSM (G90) that is painted on and oven cured with FluoroCarbon paint manufactured from Kynar 500 or Hylar 5000 resin, along with a custom-formulated high-performance primer. This produces a nominal paint dry film thickness of 25µm on the top surface (inclusive of primer) and 10 µm on the bottom (inclusive of primer). ColoRite FluoroCarbon was developed to provide extra durability, excellent weatherability, and high formability for exterior applications in Harsh weather conditions.

SUBSTRATE

Galvanized steel G90 (275gsm)

TYPICAL USES

Roofing and Walling, Sandwich Panels, K-Span, etc.

DIMENSIONS: (For normal supply products)

THICKNESS*(MM)(TCT-P)	WIDTH**(MM)	ZINC COATING (GSM)
0.42 to 1.20	700 to 1,300	275 (G90)

*For grade SS50, minimum thickness is 0.46 mm

**For width less than 700 mm are supplied with slit edge
For specific dimensions please contact Sales and Marketing Dept.

TCT-P – Total Coated Thickness with Paint Film (Steel thickness + Zinc coating thickness + Paint thickness)

Standards & Grades

Standard	Description	Sub-Strate Standard	Grades
SASO ASTM A755/ A755M	Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Pre-painted by the Coil-Coating Process for Exterior Exposed Building Products.	SASO ASTM A653/A653M	CS-Type A, B, C, FS Type A, B, SS33, SS37, SS40, SS50, SS55, SS60 & SS80
ASTM A755/ A755M	Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Pre-painted by the Coil-Coating Process for Exterior Exposed Building Products.	ASTM,A653/A653M, ASTM,A792/A792M, Aluminum Flat coils	
EN10169	Continuously organic coated (coil coated) steel flat products Technical delivery conditions	EN 10346	DX51D, DX52D, S220GD, S250GD, S280GD, S320GD, S350GD, S390GD, S420GD & S550GD
JIS G3312	Pre-Painted Hot Dip Zinc coated Steel Sheet and Strip	JIS G3302	SGCC, SGCD1,S-GC340, SGC400, SGC440 & SGC570
AS 2728	Prefinished/pre-painted sheet metal products for interior/exterior building, applications Performance requirements	AS 1397	S250, S300, S350, S450, S550



Paint System

Pretreatment

Corrosion resistance proprietary conversion coating each side

Primer Coat

Polyurethane Primer Nominal thickness: 5 µm on Top side & Polyester Primer on Bottom side.

Finish Coat

Custom formulated system. Polyvinylidene Fluoride (PVDF). Nominal thickness :20 µm microns on the top or weather side. The finish coat is available in RAL standard colors. Other colors may be available on request. PVDF paint system is available on 2 coat, 3 coat & 4 coat up to 60 µm paint thickness.








Backing Coat

Foam compatible epoxy coat or Polyester based custom formulated off white Nominal thickness: 5-7 µm. Back coat can be in the same topcoat color and DFT as required.









Gloss (60°)

Nominal 30±5%. Other gloss levels may be available on request.




GUARANTEED PAINT PROPERTIES

	TEST	TEST METHOD	DESCRIPTION	RESULTS
	Hardness (Pencil)	ASTM D 3363	Pencil	B or harder
	Adhesion -T bend	ASTM D 4145	T-bend	2T or less (No Pickoff)
	Flexibility	ASTM D 4145	T-bend	3T or less (no cracking)
	Adhesion - Reverse impact	ASTM D 2794	Reverse impact	> 9 joules
	Cross hatch	ASTM D 3359	Cross hatch	> No paint removal
	Gloss 60° (%)	ASTM D 523	Gloss	30±5%
	Color Difference	ASTM D2244	Light colors	Δ E : ≤1.0
			Medium Colors	Δ E : ≤ 1.5
			Dark Colors	Δ E : ≤2.0 / Visual match
			Metallics	Visual match



EXPECTED PRODUCT SERVICE PERFORMANCE				
	PROPERTY	TEST METHOD	DESCRIPTION	RESULTS
	Resistance to UV (QUV-A) ASTM G53	Exposure Hours		2000 Hrs
		ASTM D2244	Color Change	DE Hunterlab - Light color ≤3 Int.Color ≤5 Dark color ≤7
		ASTM D4214	Chalking	ASTM Rating 6
		ASTM D523	% Gloss Retention	≥ 60
	Natural well washed exposure ASTM G7	Exposure Years		1000 Hrs
		ASTM D2244	Color Change (Non Vertical)	DE Hunterlab - Light color ≤6 Int.Color ≤9 Dark color ≤15
		ASTM D4214	Chalking	ASTM Rating 6
		ASTM D523	% Gloss Retention	≥ 60
	Resistance to corrosion (Salt Spray) ASTM B117	Exposure Hours		1000 Hrs
		ASTM D714	Blister Density & Size	Blister density- Few, Blister size rating ≥8
	Resistance to humidity at 38± 1°C ASTM D 2247	Exposure Hours		1000 Hrs
		ASTM D714	Blister Density & Size	Blister density- Few, Blister size rating ≥8
	Resistance to abrasion	ASTM D 968	Falling sand test	40 ltrs for 25 µm
		ISO 1518	Scratch	≥2000gms
	Resistance to Heat (EN 13523-13)	ASTM D2244	≥ 90°C – 700 hours or 60°C – 1000 Hours	ΔE ≤ 2.5 ΔGloss ≤ 3%
	Kesternich	ASTM G87	Cycles	10 Cycles
	Chemical Resistance (Acid & Alkali)	AAMA 621	HCL, HNO ₃ & H ₂ SO ₄	No discoloration/No blistering
	Resistance to solvents	ASTM D1308	Solvent	No discoloration/No blistering
	Resistance to fire	BS 476 Part 7	Fire rating	Class M0

NOTE

- For most products, the metallurgical process which is inherent in the paint stoving cycle will result in some loss of ductility compared with unpainted product. However, minimum strength levels designated by relevant standards will still be applicable.
- Values quoted are for standard  colours under normal well washed conditions of exposure.
- If it is intended to use  in an exterior application within 1 km of salt marine location, or severe industrial or abnormally corrosive environment, or in areas not washed by rain or in application where it will be wholly or partially buried in the ground, please contact UNICOIL for advice.
-  has good resistance to accidental spillage of solvents such as methylated spirits, white spirits, mineral turpentine, trichloroethylene and dilute mineral acids & alkalis. However, all spillages should be immediately removed by water washing and drying.
- Properties guaranteed on minimum G90(275 GSM), Galvanized steel.

