



Small ships / Yacht Paint

Refinish Paint application review

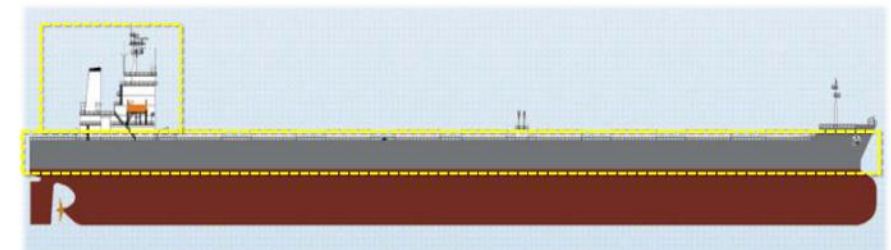


1. Painting specification

① above water

Division			Key - Point	KCC Paint	
				marine	under review (refinish)
above water	FRP / wood	Pre-treatment	Sanding / Degreasing		
		Surface treatment	Gel-coat		
			Filler		Fiber_glass putty / PrimePower Putty
		Rust prevention	X		
		Adhesion promoter	adhesion test with [Gelcoat]	EH2560	
		Filler			Fiber_glass putty / PrimePower Putty
		Top Coat	Epoxy (W: 3 month)	ET5745	
			high gloss, urethane, 50 μ m (W: 1 year)	UT6581	UT545
			high gloss, urethane, 80 μ m (W: 1 year)	UT6582	UT5031/PrimeCoat
			poly-siloxane (W: 5 year)	ST1020	
			Fluorine paint (W: 15 year)	?	
	Aluminium	Pre-treatment	Sanding/Degreasing		
		Surface treatment	Filler		PrimePower Putty
		Rust prevention	X		
		Adhesion promoter	adhesion test with [Gelcoat]	EP1730	
		Filler			Smart putty / PrimePower Putty
		Top Coat	Epoxy (W: 3 month)	ET5745	
			high gloss, urethane, 50 μ m (W: 1 year)	UT6581	UT545
			high gloss, urethane, 80 μ m (W: 1 year)	UT6582	UT5031/PrimeCoat
			poly-siloxane (W: 5 year)	ST1020	
			Fluorine paint (W: 15 year)	?	
	Steel	Pre-treatment	Sanding/Degreasing		
		Surface treatment	Filler		Smart putty
		Rust prevention	Primer		EP3000
		Adhesion promoter	adhesion test with [Gelcoat]	EH2350	
				EH2560	
		Filler			Smart putty
		Top Coat	Epoxy (W: 3 month)	ET5745	
			high gloss, urethane, 50 μ m (W: 1 year)	UT6581	UT545
			high gloss, urethane, 80 μ m (W: 1 year)	UT6582	UT5031/PrimeCoat
			poly-siloxane (W: 5 year)	ST1020	
			Fluorine paint (W: 15 year)	?	

Topside & Deck House outside



No.	Type	Product name
1	Epoxy primer	EH2350 series
2	Tie coat	UH279
2	Epoxy finish	ET5745
3	Polyurethane finish	UT6581

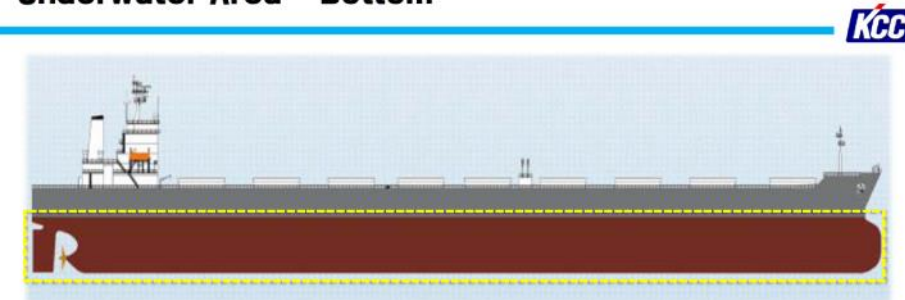
- ▶ KCC's Urethane coating system
- ▶ Excellnet weatherability
- ▶ Excellent color retention for long periods

1. Painting specification

② under water

Division			Key - Point	KCC Paint	
				marine	under review (refinish)
below water	FRP / wood	Pre-treatment	Sanding / Degreasing		
		Surface treatment	Gelcoat		
			Filler		Fiber_glass putty / PrimePower Putty
		Rust prevention	X		
		Adhesion promoter	adhesion test with [Gelcoat]	EH2560	
		Filler			Fiber_glass putty / PrimePower Putty
		Anti Fouling		A/F795 Series	X(non replaceable)
			without cuprous oxide(red brown)	Egis Crystal	
	Aluminium	Pre-treatment	Sanding/Degreasing		
		Surface treatment	Filler		Prime Power Putty
		Rust prevention	X		
		Adhesion promoter	adhesion test with [Gelcoat]	EP1730	
				EH2560	
		Filler			Prime Power Putty
		Anti Fouling		A/F795 Series	X(non replaceable)
			without cuprous oxide(red brown)	Egis Crystal	
	Steel	Pre-treatment	Sanding / Degreasing		
		Surface treatment	Filler		Smart putty
		Rust prevention	Primer		EP3000
		Adhesion promoter	adhesion test with [Gelcoat]	EH2350	
				EH2560	
		Filler			Smart putty
		Anti Fouling		A/F795 Series	X(non replaceable)
			without cuprous oxide(red brown)	Egis Crystal	

Underwater Area – Bottom



No.	Type	Product name
1	Epoxy primer	EH2350 series
2	Vinyl modified epoxy	EH2560
3	Tin free SPC A/F	A/F795 series
4	Tin free SPC A/F	A/F795 series
3	Silyl-acrylate SPC A/F	EgisPacific series
4	Silyl-acrylate SPC A/F	EgisPacific series

- ▶ Tin free SPC A/F or silyl SPC A/F
- ▶ Excellent anti-fouling performance
- ▶ Long term service life
- ▶ Compatibility with A/C or competitor's A/F

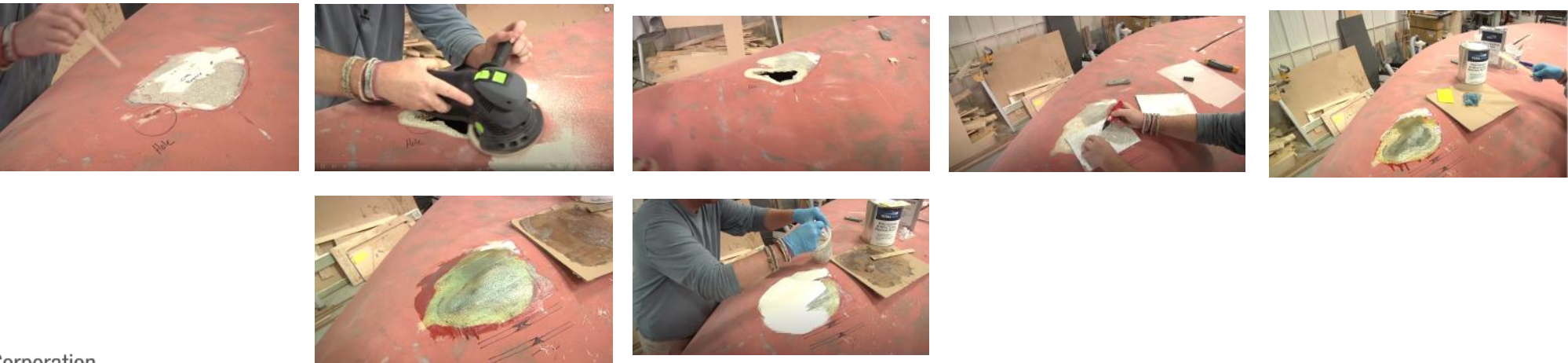
2. Characteristics of substrate

① all painting : FRP



2. Characteristics of substrate

② Spot : FRP



2. Characteristics of substrate

③ Spot : Aluminum



3. On-site Verification

① small FRP/Carbon

1. Manufacturing Ships : Small (1-person), FRP, carbon material fishing boat manufacturing
→ Leisure vessel, no antifouling paint, Build 1-2 new ships per month
2. Painting specification (FRP)
 - Gel coat : molding FRP → (Aekyung : GE-293 (transparent), or GE-550 (red))
 - Intermediate coat → DURATEC (707-002)
 - Top coat (color) : UT578(A) / (Clear) : UT5750 ➡ MS → HS



3. On-site Verification

② medium/large FRP/AL

1. Manufacturing Ships : Leisure medium-large FRP, AL, CR material
→ Leisure vessel, no antifouling paint



2. Painting specification (FRP)

- FRP : Gel coat → Epoxy/Poly Putty → Duratec → Top coat(Color : UT578(A)), (Clear : Multi Plus)
 - AL : Substrate grinding → Fairing → Putty (epoxy putty) → Epoxy primer → UT578(A) → Multi Plus
- (Anti-fouling paint for the bottom part is optional / at the request of the ship owner)

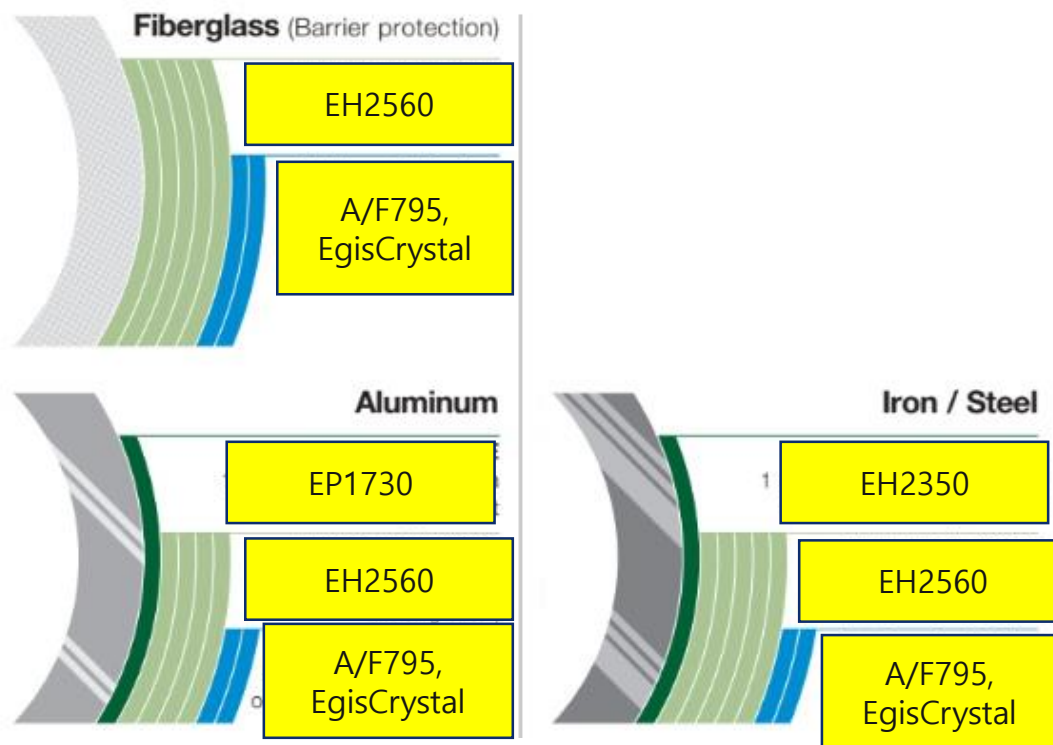
1. Depending on the purpose of the vessel, it is designated as a regular inspection target.
such as fishing vessel, merchant vessel,
Small other vessels are the owner's choice
2. Paint materials for small ships are made according to the material, and there is no coating specification, so the manufacturer can choose and use it according to his experience.
In this case, refinish paint is used. (top coat)
3. For ships without antifouling paint (mainly leisure), the final appearance is more important than the physical properties of the coating film



Antifouling

Below water systems: Two-part products

These systems provide the maximum level of protection available.



4. Product comparison

① Marine, Refinish

Division	application	Bottom of ship				Exposed area (Exterior)			
		Marine	Industrial	Decorative	Refinish	Marine	Industrial	Decorative	Refinish
putty / filler	FRP/Wood				Epoxy/FRP putty (Develop/KCT) Smart/PrimePower putty		EC3119	Unipoxy putty	Epoxy/FRP putty (Develop/KCT) Smart/PrimePower putty
	Aluminium/Steel								
Primer	Aluminium/Steel	EP1730			EP3000	EP1730			EP3000
Intermediate coat	FRP/Wood	EH2560				EH2560	EP1160(H)		
	Aluminium/Steel	EH2560				EH2560	UU2119		
Rust prevent	Aluminium/Steel	EH2350				EH2350			
Top coat	FRP/Wood	A/F795 Series, Egis Crystal				ET5745, UT6581/UT6582, ST1020, Fluorine paint?	UT5590/UT2578		UT545/UT5031/Prime, Deveolp, Develop
	Aluminium/Steel								

Top coat : Epoxy (3_month) < Urethane(1_Year) < Poly Siloxane(5_Year) < Fluorine(15_Year)

① UT6581 (50μm/coat) ↔ UT6581 (80μm/coat), ② Epoxy (usually, deck ← fade, non-slip)

AF : ① Egis crystal (without cuprous oxide(red brown),

② AF100/AF1000 (silicone, clear type)

#. Big ships → [Follow the ship manufacturer's standards](#)

5. Testing by paint specification

* TEST : Adhesion / Water Resistance / Rust Resistance / Weather Resistance						auto-Refinish paint													
NO.	division	Application area	category	epoxy putty	poly putty	anti-rust	adhesion primer	adhesion primer	epoxy putty	poly putty	adhesion primer	urethane surfacer	AF	epoxy-top coat	urethane topcoat	Urethane-1	Urethane-2	CLEAR	note
			product name	EC3119PTA	PC280	EH2350PTA	EH2560	EP1160(H) EP3000	EC3119PTA	PC280	EP1160(H) EP3000	UU3000	A/F795	ET5745	UT6581	UT5031	UT545	UT5750	
			DFT(μm)	500	500	160	100	50	500	500	50	50	300	100	40	50	50	50	
1	new ship STD	Under	CR			○	○						○						Antifouling paint application
2		Under	CR	○		○	○						○						
3		Top	CR			○	○							○					
4		Top	CR	○		○	○							○					
5	new ship Refinish	Under / Top	CR			○		○								○			Clear Coat Application excluding EH2350
6		Under / Top	CR			○		○									○		
7		Under / Top	CR		○	○		○								○			
8		Under / Top	CR		○	○		○									○		
9		Under / Top	CR		○	○		○								○	○		
10		Under / Top	CR		○	○		○									○		
11		Under / Top	CR					○								○			
12		Under / Top	CR		○			○								○			
13	repair ship Refinish	Under	CR				○		○		○		○						Antifouling paint application
14		Under	CR				○			○			○						
15		Under / Top	CR				○		○		○					○			
16		Under / Top	CR				○			○						○			
17		Under / Top	CR				○		○			○				○			urethane surfacer application urethane surfacer / CLEAR application
18		Under / Top	CR				○			○		○				○			
19		Under / Top	CR				○		○			○					○	○	
20		Under / Top	CR				○			○		○					○	○	

6. Painting specification

#. Summary of product

Division		Material	Fairing (putty)	anti-rust primer	adhesion primer	anti fouling	Top coat
<i>Under Water</i>	Marine-Specification	CR		EH2350 (epoxy)	EH2560 (epoxy)	A/F 795	
	Refinish-Specification	CR, AL	EC3119 (epoxy putty)	EH2350 (epoxy)	EP3000 (epoxy)	A/F 795 / AF/795 →	UT5031 (2K urethane)
		FRP	PC280 (UPE putty)		EP3000 (epoxy)		UT5031 (2K urethane)

Division		Material	Fairing (putty)	anti-rust primer	adhesion primer	anti fouling	Top coat
<i>TOP</i>	Marine-Specification	CR		EH2350 (epoxy)	EH2560 (epoxy)	UT6581 (2K urethane)	
	Refinish-Specification	CR, AL	PC280 (UPE putty)	EH2350 (epoxy)	EP3000 (epoxy)	UT5031 (2K urethane)	UT5750 (2K urethane) (optional)
		FRP					