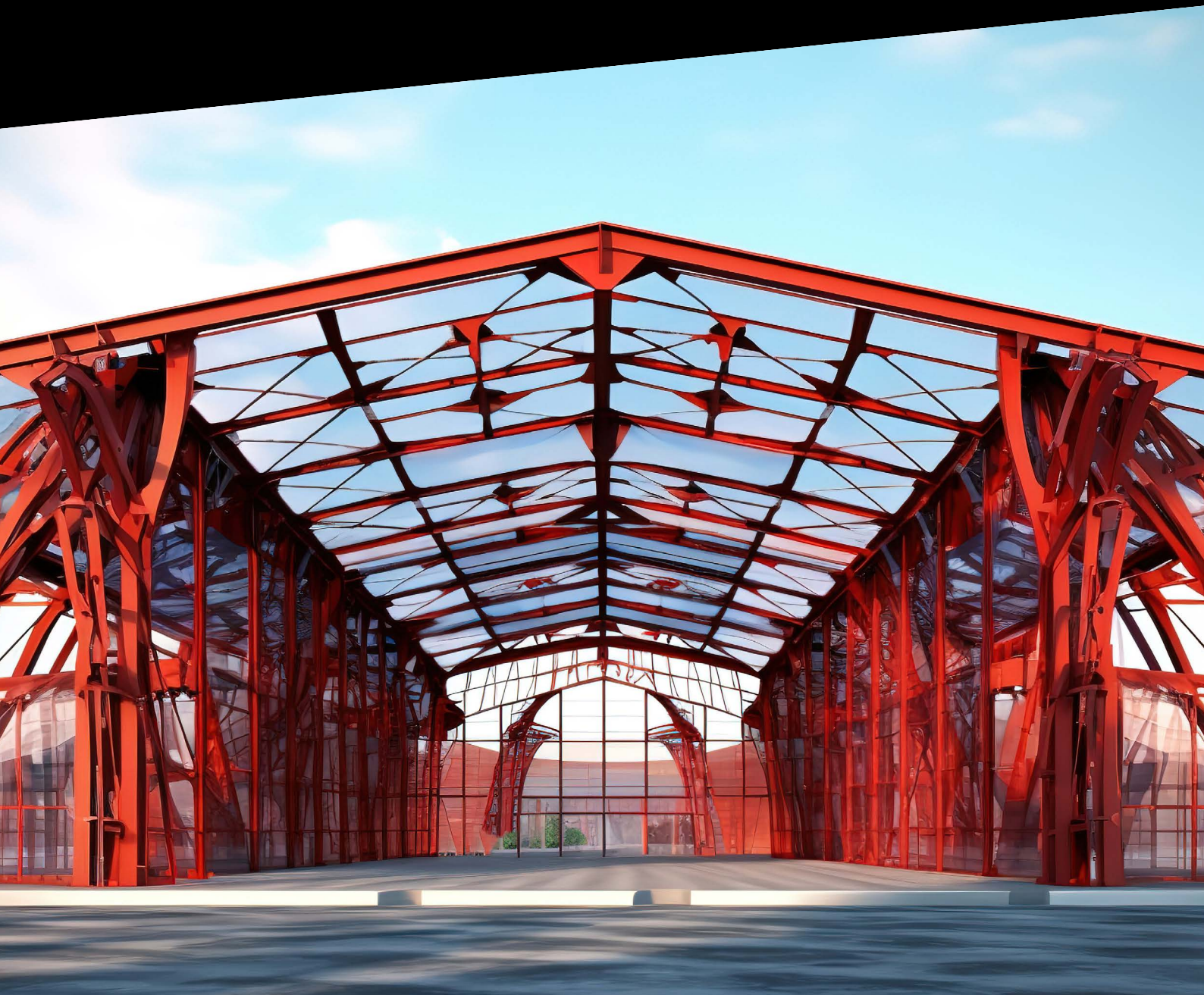


# Specifier guide for structural steelwork

Based on the requirements of ISO 12944-5:2018





## Specifier guide for structural steelwork

Axalta Coating Systems is a leading global coatings company focused 100% on the development, manufacture and sale of high performance liquid and powder coatings. Our innovative products and services include paint, colour matching tools, application technologies, customer training and business management systems.

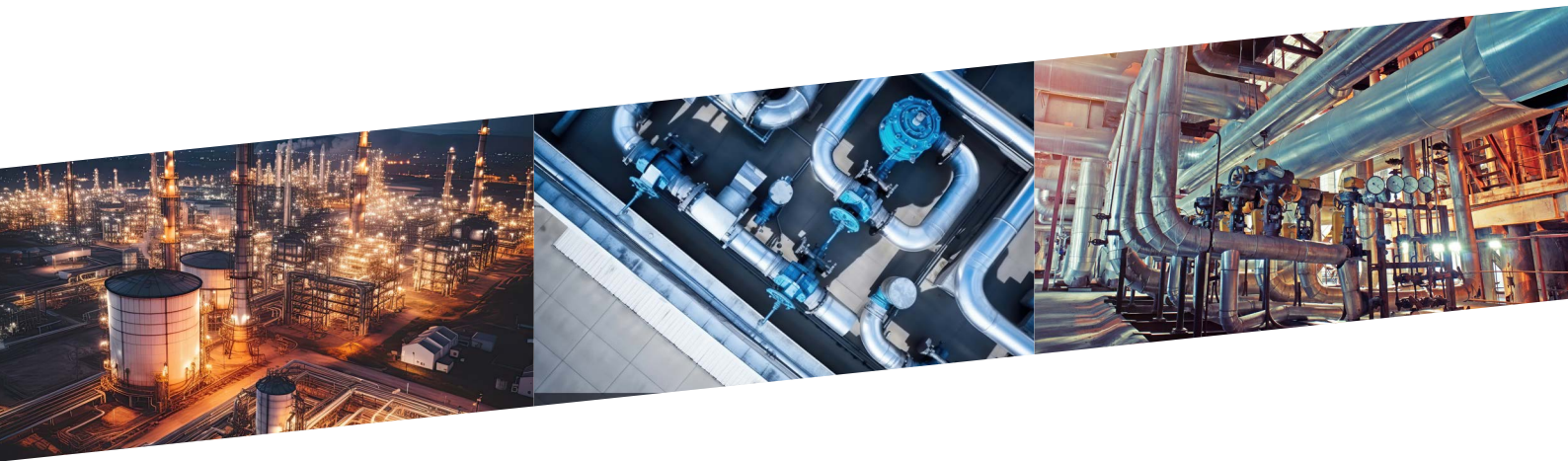
### Advice for your project

Every projects has its own, specific requirements, and careful attention is needed to ensyre the correct coating system is chosen. Axalta Coating Systems' experience staff will be please to give specific project advice, and wite visits can be arranged if required.

### Durability

ISO12944-1:2017 defines 4 ranges of durability. This is the time range, in years, that a coating system is expected to last, until breakdown has reached a level Ri3 over 10% of the surface, as defined in ISO 4628-3.

The table of systems gives paint specifications for the 'high' 15 to 25 years range, as this is likely to be the most common lifetime of interest. Please consult us for advice for other durability ranges.



### Extensive experience

The name 'Axalta' is relatively new to the UK fabrication and shotblasting markets. And if we mention our previous names which include, Protega, Tukkirila, Crosby Casco, Kemira or Macpherson Heavy Duty, you may recognise that we have been a leading suuplier to the UK protective coatings market for many decades.

### Wide product range

Axalta in the UK supply an extensive range of products into the steelwork anticorrosion market. The tabel opposite gives a small sample of our products, but many more are available. Please ask for advice for your next project.

### Durability from ISO 12944-1:2017

Symbol	Period	Durability (years)
L	Low	Up to 7
M	Medium	7 to 15
H	High	15 to 25
VH	Very high	Above 25

		Functional					Decorative				
Category <sup>1</sup>	Durability <sup>2</sup>	ISO 12944 system <sup>3</sup>	Product	Finish	No. coats	DFT $\mu\text{m}$	Product	Finish	No. coats	DFT $\mu\text{m}$	
<b>C1</b>			For C1 any system used for a higher corrosivity category, preferably for C2, may be used. (From ISO 12944-5:2018, table C)								
<b>C1 &amp; C2</b>	High 15-25	C2.03	<b>ViterPrime 035</b> Total DFT:	Matt	2	2x80 160 $\mu\text{m}$	<b>ViterPrime 035</b> <b>ViterLac ACV</b> (spray) or <b>ViterLac ABV</b> (brush) Total DFT:	Gloss	1 1	120 40 160 $\mu\text{m}$	
		C2.05	<b>ViterShield 178</b> Total DFT:	Matt	1	120 120 $\mu\text{m}$	<b>ViterShield 178</b> <b>ViterThane PLV</b> Total DFT:	Gloss	1 1	80 40 120 $\mu\text{m}$	
		C2.07	<b>ViterZinc 99</b> Total DFT:	Matt	1	60 60 $\mu\text{m}$	Refer to Axalta				
<b>C3</b>	High 15-25	C3.03	Refer to Axalta								
		C3.06	<b>ViterShield 178</b> Total DFT:	Matt	2	80+100 180 $\mu\text{m}$	<b>ViterShield 178</b> <b>ViterThane PLV</b> Total DFT:	Gloss	1 1	135 45 180 $\mu\text{m}$	
		C3.09	<b>ViterZinc 99</b> <b>ViterShield 178</b> Total DFT:	Matt	1 1	70 90 160 $\mu\text{m}$	<b>ViterZinc 99</b> <b>ViterThane PLV</b> Total DFT:	Gloss	1 1	100 60 160 $\mu\text{m}$	
<b>C4</b>	High 15-25	C4.03	Refer to Axalta								
		C4.06	Refer to Axalta				<b>ViterShield 178</b> <b>ViterThane PLV</b> Total DFT:	Gloss	2 1	2x100 40 240 $\mu\text{m}$	
		C4.10	Refer to Axalta				<b>ViterZinc 99</b> <b>ViterShield 178</b> <b>ViterThane PLV</b> Total DFT:	Gloss	1 1 1	60 100 40 200 $\mu\text{m}$	
<b>C5 (was C5I)</b>	High 15-25	C5.03	Refer to Axalta				<b>ViterShield 178</b> <b>ViterThane PLV</b> Total DFT:	Gloss	3 1	3x100 40 340 $\mu\text{m}$	
		C5.07	Refer to Axalta				<b>ViterZinc 99</b> <b>ViterShield 178</b> <b>ViterThane PLV</b> Total DFT:	Gloss	1 2 1	60 2x100 40 300 $\mu\text{m}$	

1. Corrosivity category from table 1 of ISO 12944-2:2017

2. Expected lif of paint system to first major maintenance, in years. Taken as 10% breakdown to R<sub>i3</sub> in ISO 4628-3 (see ISO12944-1:2017). New steelwork, blast cleaned to Sa2½ (ISO8501-1:2007), profile 50-75  $\mu\text{m}$ , is required for all systems.

3. System numbers from tables in ISO 12944-5:2018, annex 3

These coating systems are suggested as meeting the performance requirements of ISO 12944 (2017 and 2018 revisions) based on our knowledge and experience. They do not necessarily meet all the requirements of ISO 12944 or its testing regimes. These coating systems are given as a general guide only and specific advice should be obtained from Axalta Coating Systems for each project.

# Steelwork protection by design

Pre-2018 categories	New categories and corrosivity	Typical exterior environment	Typical interior environment
C1	<b>C1 Very low</b>	Not applicable (C1 exterior us not defined)	General heated buildings with clean, non corrosive atmospheres
C2	<b>C2 Low</b>	Low pollution (e.g. rural areas)	Unheated buildings where condensation may occur
C3	<b>C3 Medium</b>	Moderate pollution (e.g. urban, industrial and low salinity coastal areas)	Production rooms with high humidity and some air pollution
C4	<b>C4 High</b>	High pollution (e.g. industrial areas, coastal areas with moderate salinity)	Mild corrosive environments, (e.g. swimming pools, chemical plants)
C5I	<b>C5 Very high</b>	High humidity and aggressive atmospheres due to industry, coastal areas with high salinity	Buildings / areas with almost permanent condensation and with high pollution
C5M	<b>CX Extreme</b>	Offshore high salinity, extreme humidity and aggressive industrial atmospheres (e.g. tropical)	Industrial areas with extreme humidity and aggressive atmospheres
Im1	<b>Im1</b>	Immersion in fresh water	
Im2	<b>Im2</b>	Immersion in sea or brackish water	
Im3	<b>Im3</b>	Buried in soil	
Im4	<b>Im4</b>	Offshore, see part 9 of ISO 12944	

The above corrosivity categories are defined in table 1 of ISO 12944-2:2017.

ISO 12944 had new revisions published in 2017 and 2018, which extensively revised the previous versions.

The above table gives a comparison between previous and current categories, as many specifiers will be familiar with the previous versions. These give a simple classification or both interior and exterior conditions which painted steelwork will have to withstand.

For questions please contact  
your local sales office.

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