

# Color Coated Steel Chemical Composition and Properties

Front side coating performance reference value									
Coating Type	Code	Coating Thickness (μm)	Pencil Hardness	60° Specular Glossiness			180° Bend Test		
				Low A	Middle B	High C	Low A	Middle B	High C
<b>Polyester</b>	PE	≥20	≥F	≤40	>40~≤70	≥70	≤5T	≤3T	≤1T
<b>Silicon modified polyester</b>	SMP	≥20	≥F	≤40	>40~≤70	≥70	≤5T	≤3T	≤1T
<b>Home appliance environmental protection polyester</b>	JD	≥20	≥H	≤40	>40~≤70	≥70	≤5T	≤2T	≤1T
<b>High durability polyester</b>	HDP	≥20	≥HB	≤40	>40~≤70		≤5T	≤2T	≤1T
<b>Polyvinylidene fluoride</b>	PVDF	≥20	≥HB	≤40	>40~≤70		≤5T	≤2T	≤1T
Coating Type	Code	reverse impact J			Neutral salt spray resistance test h	UV lamp accelerated aging test h			
		Low A	Middle B	High C		UVA-340	UVA-313		
<b>Polyester</b>	PE	≥6	≥9	≥12	≥500	≥600	≥400		
<b>Silicon modified polyester</b>	SMP	≥6	≥9	≥12	≥750	≥720	≥480		
<b>Home appliance environmental protection polyester</b>	JD	≥6	≥9	≥12	≥250	≥480			
<b>High durability polyester</b>	HDP	≥6	≥9	≥12	≥750	≥960	≥600		
<b>Polyvinylidene fluoride</b>	PVDF	≥6	≥9	≥12	≥1000	≥1800	≥1000		
Coating Type	Feature								
<b>Polyester</b>	has good adhesion, rich colors, wide range in formability and outdoor durability, moderate chemical resistance, and low cost.								
<b>Silicon modified polyester</b>	coating film has good hardness, abrasion resistance and heat resistance, as well as good outdoor durability, chalking resistance, gloss retention, and general flexibility.								
<b>High durability polyester</b>	Excellent color retention, outdoor durability, chalking resistance and UV resistance, good paint film adhesion, rich colors, and high cost performance.								
<b>Polyvinylidene fluoride</b>	Excellent color retention, outdoor durability, chalking resistance and UV resistance, excellent solvent resistance, good moldability, and dirt resistance.								
Back side coating performance reference value									
Coating Type	Coating thickness (μm)	Pencil hardness	60° Mirror gloss		180° Bending test		Reverse impact J		
<b>Primary coating</b>	5~7	F~2H			≤3T		≥9		
<b>Secondary coating</b>	12~18	F~2H	40~60		≤3T		≥9		
Commonly used to indicate codes for PPGI Steels and Strips									
Dimensional accuracy	Ordinary thickness accuracy PT.A		Ordinary width accuracy PW.A		Ordinary length accuracy PL.A		Ordinary unevenness accuracy PF.A		
	Advanced thickness accuracy PT.B		Advanced width accuracy PW.B		Advanced length accuracy PL.B		Advanced roughness accuracy PF.B		
Applications	exterior use in building		interior use in building		home appliances	furniture	steel windows		Other
Code	JW		JN		JD	JJ	GC		QT
Coating surface state	Coated board	Embossed board	Printed board	Hot film board	Coating structure category	Front side two layers, back side two layers		Front side two layers, Back side two layers	
Code	TC	YA	YI	RTM	Code	2/1		2/2	