



DANA GROUP
(IRON & STEEL DIVISION)



OUR VISION

We aspire to be the global steel industry benchmark for world's most reliable and innovative steel products manufacturer, service and solution provider in the industry.

OUR MISSION

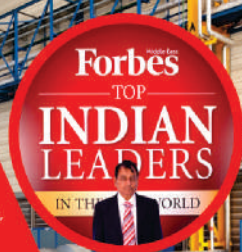
To maximize the value for our worldwide client base by supply high quality steel products, providing related services and solutions while utilizing innovative technologies and a team of motivated employees, focused on continuous improvement, highest business standards, work ethics and corporate citizenship

ABOUT US

Since its inception, DANA group's endeavor has always been to do their best in catering the needs of their valued customers with their high quality products and services, ofcourse at reasonable rates. Sharing, and practicing this principle are their corporate office, manufacturing units and showrooms in UAE, trading companies and manufacturing facilities in India and associate offices in West Africa and South Africa.

OUR STRATEGIC VISION

- Moving up the Steel Value Chain
- Diversifying the Product Base
- Geographic Expansion



CORE VALUES

- We uphold honest business practices and nurture a mutually respectful and beneficial relationship with all our customers and suppliers.
- We are passionate about achieving results that exceed expectations.
- We believe our employees are our greatest asset.
- We embrace change and are on the lookout to seize new opportunities at all time.
- We scale to seek heights of excellence in all that we do.

DANA STEEL – ADDING VALUE TO STEEL

DANA STEEL INDUSTRY LLC, UAE has it's state of the art Cold Rolling Mill Complex (CRM Complex) Situated in DIC, Dubai Industrial City Park (Strategically Situated just 35 kms from Jebel Ali Sea Port) from and it's Marketing Head Quarters in Dubai (Situated 4 kms from Dubai International Airport). Our Products are Proudly "MADE IN UAE" and exported to GCC (Gulf Cooperation Council) Countries, Middle East, Africa, South East Asia, America and Europe. Our CRM Complex in Dubai Industrial City is fully equipped with State of the art Equipment.

DANA STEEL INDUSTRY LLC is our Group's hallmark division and is one of the largest and most modern manufacturer of Hot Dip Galvanized (GI), Aluzinc (AZ), Pre-painted Galvanized (PPGI), Pre-painted Aluzinc (PPAZ) & Pre-painted Aluminum (PPAL) Coils in the Region. All our products are PROUDLY MADE IN U.A.E. and exported to more than 50 countries worldwide.

KEY EQUIPMENT	INSTALLED CAPACITY	PRODUCT MANUFACTURING
CONTINUOUS GALVANIZING LINE (CGL)	250,000 MTPA	GALVANIZED STEEL (GI), ALUZINC (AZ)
CONTINUOUS COLOUR COATING LINE (CCL)	150,000 MTPA	PRE-PAINTED GALVANIZED (PPGI), PRE-PAINTED ALU ZINC (PPAZ), PRE-PAINTED ALUMINUM (PPAL)

We are Part of Well Re-knowned Industrial Conglomerate **DANA GROUP** (www.danagroups.com). Since 1991 our Group has been headquartered in Dubai UAE, and has expanded across Africa, UAE and Asia. The Group has diversified interests in Steel, Oil, Retail, Healthcare and Hospitality.

"Since our Inception in 1991, I have always envisioned to form an organization which thrives on cutting-edge technology, innovation and sound business principles" – **DR. BIRBAL SINGH DANA**.



Dr. Birbal Singh Dana
Founder, Chairman & Managing Director

Dr. Birbal Singh Dana

Founder, Chairman & Managing Director

Dr. Birbal Singh Dana was formally a General surgeon by profession. He had a commendable stint at the University Hospital of Libya for over 15 years where he rose to the position of the Head of Department of Surgery, before he took to entrepreneurship in 1991. Having sound business acumen, he put his principles of honesty, diligence and patience to practice in his venture.

A person with vision and vigor, he has been the principal force behind the phenomenal growth of the Group and under his leadership the company has come to be the most respected and widely diversified business house in the Middle East.

GALVANIZED STEEL

Hot dipped galvanized steel is produced by passing cold rolled steel through a molten bath of Zinc at temperatures around 460 °C. The Zinc acts as a physical barrier between the atmosphere and the surface of the metal. Further, due to its lower chemical potential than iron, it is attacked and dissolved first, thereby offering superior corrosion resistance (cathodic protection).

STATE OF ART PRODUCTION TECHNOLOGY

- **DUAL CERAMIC POT** → for Quick changeover between Galvanized & Aluzinc Coils Production.
- **VERTICAL NOF (NON-OX FURNACE) TECHNOLOGY** → for Superior online annealing and Excellent Mechanical Properties.
- **ONLINE ZINC COATING MASS MEASUREMENT** → for Precision Zinc Coating Control.
- **ONLINE 4-HI SKIN PASS MILL** → for Perfect smooth surface finish.
- **ONLINE TENSION LEVELLER** → for giving super-flat end products.

SURFACE FINISH & COATING THICKNESS

Galvanized steel can be identified by the crystallization pattern on the surface (often referred to as "spangle"). Regular, Minimized and Suppressed Spangle are the three types of surface finishes that are available. The service life of this material would depend on the coating thickness, which is available between 60 to 350 grams per square meter.

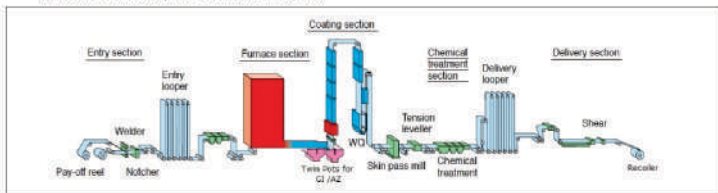


APPLICATIONS

GI has a wide variety of applications which include Roofing, Sidewall Partitions, False Ceilings, Decking, Steel Buildings, Automobile Components, Water Heater and Coolers, Furniture, Rolling Shutters, Sign Boards, HVAC Ducting and many more.

ADVANTAGES

- Superior corrosion resistance
- Higher aesthetic value
- Excellent workability and adherence to paint





PROCESS CAPABILITY (LINE SPECIFICATION)

DESCRIPTION	GALVANIZING	CUT TO LENGTH	SLITTING LINE
Type	VERTICAL NOF CONTINUOUS GALVANIZING		
Line Speed	120 mpm	100 mpm	100 mpm
Thickness (MM)	0.25 TO 3.80 MM	0.30 TO 6.00 MM	0.20 TO 3.00 MM
Width (MM)	650 TO 1350 MM	350 TO 2000 MM	35 TO 1550 MM
Output Coil ID (MM)	508mm / 610mm	-	508mm / 610mm
Output Coil OD (MM)	1850 mm MAX	-	1850 mm MAX
Output Coil Weight (MT)	15 MT MAX	-	10 MT MAX
Zinc Coating (GSM)	60 TO 350 (GSM)	60 TO 350 (GSM)	60 TO 350 (GSM)
Length (MM)	-	500 TO 4000 mm max	-

PRODUCT TYPE AND APPLICABLE SPECIFICATION

DESCRIPTION	GALVANIZED STEEL
SPECIFICATION	ASTM A 653/A 653M - 18
	CS Type A,B,C
	FS Type A,B
	DDS Type A,B
	SS Grade 33, 37, 40, 50, 80
	EN 10346 :2015 which supersedes EN 10327 : 2004
	DX51D , DX52D , DX53D
	EN 10346 :2015 which supersedes EN 10326 : 2004
	S220GD, S250GD, S280GD, S320GD, S350GD, S550GD
	JIS G 3302 :2010
	SGCC, SGCD1, SGCD2, SGCD3, SGC - 340, 400, 440, 490, 570
TYPE	Tension Levelled / Non Tension Levelled
	Skin Passed / Non Skin Passed
SURFACE FINISH	Regular Spangle/ Minimized Spangle /Suppressed Spangle
SURFACE TREATMENT	Chromate Passivated (Cr+6 / Cr+3), Non-Chromate Passivated, Oiled, Non Oiled and No Treatment.



COMPARABLE INTERNATIONAL GRADES

CLASSIFICATION	ASTM A 653 - 2018	EN 10346 : 2015	JIS G 3302 : 2010
COMMERCIAL QUALITY	CS	DX51D	SGCC
LOCK FORMING QUALITY	CS	DX51D	SGCD1
DRAWING QUALITY	FS	DX52D	SGCD2
DEEP DRAWING QUALITY	DDS / EDDS	DX53D	SGCD3
STRUCTURAL QUALITY	GRADE 230-550	S220-S550	SGC 340-570

TYPICAL RANGES OF MECHANICAL PROPERTIES

CLASSIFICATION	TYPE	YIELD STRENGTH Mpa	TENSILE STRENGTH Mpa	ELONGATION (%), min					
				THICKNESS					
				0.25 to 0.40 mm	0.40 to 0.60 mm	0.6 to 1.00 mm	1.00 to 1.60 mm	1.60 to 2.00 mm	2.50 +
JIS G 3302	SGCC	-	-	-	-	-	-	-	-
	SGCD1	-	270	-	34	36	37	38	-
	SGCD2	-	270	-	36	38	39	40	-
	SGCD3	-	270	-	38	40	41	42	-
	SGC340	245	340	20	20	20	20	20	20
	SGC400	295	400	18	18	18	18	18	18
	SGC440	335	440	18	18	18	18	18	18
	SGC490	365	490	16	16	16	16	16	16
	SGC570	560	570	-	-	-	-	-	-
ASTM A653	CS TYPE A	170/380	-	≥ 20					
	CS TYPE B	205/380	-	≥ 20					
	CS TYPE C	170/410	-	≥ 15					
	FS TYPE A	170/310	-	≥ 26					
	FS TYPE B	170/310	-	≥ 26					
	DDS	140/240	-	≥ 32					
	EDDS	105/170	-	≥ 40					
	SS-Gr 230/Gr 33	230	310	20					
	SS-Gr 255/Gr 37	255	360	18					
	SS-Gr 275/Gr 40	275	380	16					
	SS-Gr 340 C1/Gr 50	340	450	12					
	SS-Gr 340 C2/Gr 50	340	-	12					
	SS-Gr 340 C3/Gr 50	340	480	12					
	SS-Gr 350/Gr 80	550	570	-					
EN 10346	DX51D	-	270-500	22					
	DX52D	140-300	270-420	26					
	DX53D	140-260	270-380	30					
	S220GD	220	300	20					
	S250GD	250	330	19					
	S280GD	280	360	18					
	S320GD	320	390	17					
	S350GD	350	420	16					
	S550GD	550	560	-					



ALUZINC STEEL

Aluzinc is composition of coating 55% aluminum, 43.4 % zinc and 1.6 % silicon. The coating is also applied by means of a continuous hot dip galvanizing process. Aluzinc-zinc coating offer an excellent corrosion resistance resultant from the barrier effect of the aluminum on the surface and the sacrificial protection of zinc. Aluzinc has a clean, natural and bright silvery surface. The surface includes small spangles that give it a lustrous and striking appearance as light conditions change.

Aluzinc is the world's fastest growing metallic coating. This is due to the fast of combined strength, formability and recyclability of steel with the proven long term anti- corrosion performance of the Al-Zn alloy coating. This combination results in an economical product with superior eco-friendliness attributes of durability, recyclability, energy efficiency and scarce resource utilization.

APPLICATIONS

Aluzinc Steel Coil is widely used for ovens, electrically controlled cabinets, roofs and industrial freezers in various residential and commercial buildings. We offer these coils in different specifications to meet the exact clients' requirements.

ADVANTAGES

- Good corrosion resistance at high temperatures
- Good abrasion resistance because of its surface hardness
- Excellent thermal and light reflectivity.

CORROSION RESISTANCE

The improved corrosion resistance of 55% Al-Zn alloy-coated steel coils is derived from the unique combination of the barrier protection of the aluminum and the sacrificial protection of the zinc. The formation of an insoluble aluminum oxide layer provides the barrier protection, while the zinc provides a sacrificial protection at cut edges, scratches and areas of coating damage.

HEAT RESISTANCE

Similar to the aluminum coated steel that can resist high temperature - oxidation, 55% Al-Zn alloy-coated steel demonstrates better resistance to high temperature.

HEAT TRANSMISSION AND REFLECTIVITY

55% Al-Zn alloy-coated steel coil has a high reflectivity value making it an effective barrier against heat.

PROCESS CAPABILITY (LINE SPECIFICATION)

DESCRIPTION	ALUZINC	CUT TO LENGTH	SLITTING LINE
Type	VERTICAL NOF CONTINUOUS GALVANIZING		
Line Speed	120 mpm	100 mpm	100 mpm
Thickness (MM)	0.30 TO 2.00 MM	0.30 TO 6.00 MM	0.20 TO 3.00 MM
Width (MM)	650 TO 1350 MM	350 TO 2000 MM	35 TO 1550 MM
Output Coil ID (MM)	508mm / 610mm	-	508mm / 610mm
Output Coil OD (MM)	1850 mm MAX	-	1850 mm MAX
Output Coil Weight (MT)	15 MT MAX	-	10 MT MAX
Zinc Coating (AZ)	30 to 150 (AZ)	30 to 150 (AZ)	30 to 150 (AZ)
Length (MM)	-	500 TO 4000 mm max	-

PRODUCT TYPE AND APPLICABLE SPECIFICATION

DESCRIPTION	ALUZINC
SPECIFICATION	ASTM A 792 / A 792 M - 10 (2015)
	CS TYPE A, B, C
	FS, DS, HTS
	SS GRADE 33, 37, 40, 50, 80
	EN 10346 : 2015 which supersedes EN 10327 : 2004
	DX 51 D, DX 52 D, DX 53 D
	EN 10346 : 2015 which supersedes EN 10326 : 2004
	S 220 GD, S 250 GD, S 280 GD, S 320 GD, S 350 GD, S 550 GD
	JIS G 3321 : 2010
	SGLCC, SGLCD, SGL : 400, 440, 490, 570
TYPE	Tension Levelled / Non Tension Levelled Skin Passed / Non Skin Passed
SURFACE FINISH	Regular Spangle/ Minimized Spangle /Suppressed Spangle
SURFACE TREATMENT	Chromate Passivated (Cr+6 / Cr+3), Non-Chromate Passivated, Oiled, Non Oiled, Anti-Finger Print, Non- Anti Finger Print and No Treatment.

CONTINUOUS GALVANIZING LINE (CGL)



COMPARABLE INTERNATIONAL GRADES

CLASSIFICATION	ASTM A 792 -10(2015)	EN 10346:2015	JIS G 3321:2010
COMMERCIAL QUALITY	CS	DX51D	SGLCC
LOCK FORMING QUALITY	CS	DX51D	SGLCC
DRAWING QUALITY	FS	DX52D	SGLCD
DEEP DRAWING QUALITY	DS	DX53D	SGLCD
STRUCTURAL QUALITY	GRADE 230-550	S220-S550	SGL 400-570

TYPICAL RANGES OF MECHANICAL PROPERTIES

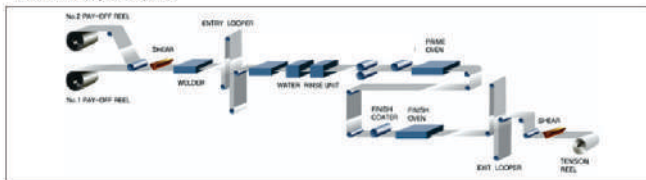
CLASSIFICATION	TYPE	YIELD STRENGTH Mpa	TENSILE STRENGTH Mpa	ELONGATION (%), min				
				THICKNESS				
				0.30 to 0.40 mm	0.40 to 0.60 mm	0.6 to 1.00 mm	1.00 to 1.60 mm	1.60 to 2.00 mm
JIS G 3321	SGLCC	-	270	20	21	24	24	25
	SGLCD	-	270	25	27	31	32	33
	SGL400	295	400	16	17	18	18	18
	SGL440	335	440	14	15	16	18	18
	SGL490	365	490	12	13	14	16	16
	SGL570	560	570	-	-	-	-	-
ASTM A792	CS TYPE A	205/410	-	≥20				
	CS TYPE B	245/410	-	≥20				
	CS TYPE C	205/450	-	≥15				
	FS	170/275	-	≥24				
	DS	140/240	-	≥30				
	HTS	205/450	-	≥15				
	SS-Gr 230/Gr 33	230	310	20				
	SS-Gr 255/Gr 37	255	360	18				
	SS-Gr 275/Gr 40	275	280	16				
	SS-Gr 340 C1/Gr 50	340	450	12				
	SS-Gr 340 C3/Gr 50	340	-	12				
EN 10346	DX51D	-	270-500	22				
	DX52D	140-300	270-420	26				
	DX53D	140-260	270-380	30				
	S220GD	220	300	20				
	S250GD	250	330	19				
	S280GD	280	360	18				
	S320GD	320	390	17				
	S350GD	350	420	16				
	S550GD	550	560	-				

CONTINUOUS COLOR COATING LINE [CCL]:-

DANA Steel UAE is having the Only Continuous Color Coating Line in the Middle East having the Latest Korean **Hot Lamination** technology for producing Color Coated Galvanized & Aluminum Coils with various patterns for precision end usage in construction and home appliances. Coil coating is a continuous online process for coating metal before fabrication into end products. The steel or aluminum substrate is delivered in coil form. The coil is positioned at the beginning of the coating line, and in one continuous online process, the coil is uncoiled, pre-cleaned, pre-treated, primer coated, baked and finally color coated and rebaked before being recoiled on the other end and packaged for shipment. Our Installed Production Capacity is **150,000 Mt/annum**

The products manufactured by our State of the Art CCL are :-

- * **PREPAINTED GALVANIZED (PPGI) COILS** with Coating as per ASTM A755/A755M-18 and base material per ASTM A653/ JIS G3312/ EN 10346 Standards .
- * **PREPAINTED ALUZINC (PPAZ) COILS** with Coating as per ASTM A755/A755M-18 and base material as per ASTM A792 / JIS G3321/ EN 10346 Standards
- * **PREPAINTED ALUMINUM (PPAL) COILS** with Coating as per ASTM and base material as per ASTM B209 - Aluminum Alloys like A3105 A1100 A3003 A3004 A5005 A5052 A5754 or as per request



COATING SYSTEMS

Coil coating is a continuous and highly automated process for coating metal before fabrication. In one continuous process both the top and bottom sides are cleaned, chemically treated, primed, oven cured, top coated, oven cured again, rewound and packaged.

Coil coating provides beautiful topcoats, durable surfaces, innovative applications, green benefits, and cost savings as compared to other substrates and other coating options.

Coating systems supplied as per the specification consist of a Primer coat covered by various types and thicknesses of top coats. The combination of primer and top coat is classed as either a two-coat thin-film system or as a multi-coat (two or more) thick-film system.



TYPICAL TOP-COATING MATERIALS

- EPOXY
- REGULAR MODIFIED POLYESTER (RMP)
- SILICON MODIFIED POLYESTER (SMP)
- HIGH DURABLE POLYESTER (HDP)
- PVDF/PVDF2
- PLASTISOL
- PUPA / ARS
- ANTI-BACTERIAL
- SELF-CLEANING/ ANTI DUST
- WRINKLE FINISH ANTI SKIDDING



APPLICATION FIELD

As per types of surface coating of paint, colour coated Steel and aluminium coils can be divided into polyester (PE) coated Steel and aluminium coils, fluorocarbon (PVDF) coated Steel and aluminium coils and Epoxy coated Steel and aluminium coils.

Coated Steel and aluminium coils is widely used in the roofing and cladding system, ceiling system, curtain wall plate, shutter, gutter, composite panel, can, home appliances board and embossed aluminium coil.

COATING SPECIFICATION:

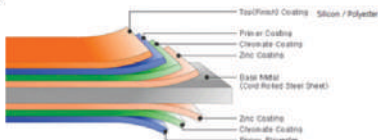
PROCESS CAPABILITY (LINE SPECIFICATION)			
DESCRIPTION	PPGI	PPAZ	PPAL
Type	CONTINUOUS COLOR COATING		
Line Speed	100 mpm	100 mpm	100 mpm
Thickness (MM)	0.25 TO 1.20 MM	0.30 TO 1.20 MM	0.40 TO 1.50 MM
Width (MM)	650 TO 1250 MM	650 TO 1250 MM	650 TO 1250 MM
Output Coil ID (MM)	508mm / 610mm	508mm / 610mm	508 MM
Output Coil OD (MM)	1200 mm MAX	1200 mm MAX	1200 MM MAX
Output Coil Weight (MT)	7 MT MAX	7 MT MAX	4 MT MAX
Type of Painting	EXPOXY,RMP (REGULAR MODIFIED POLYESTER), SMP (SILICON MODIFIED POLYESTER) HDP (HIGH DURABLE POLYESTER), PVDF (POLY VINYLIDENE FLUORIDE),PLASTISOL,PUPA/ARS, ANTI-BACTERIAL, WRINKLE FINISH ANTI SKIDDING, SELF-CLEANING/ ANTI DUST.		
Surface Finish	Smooth, Matt, Gloss, Textured		
Type of Material	HOT DIPPED - GALVANIZED STEEL (ZINC : 60-350 GSM)	HOT DIPPED - ALU ZINC (ALU ZINC 30-150)	ALLOY (1100, 1060, 3003, 3104, 3004, 3105, 3005, 5052, 5005, 5182, 5754 etc.)
Grade/ Temper	LFQ,SS,SGCC,CS,DX,HX	LFQ,SS,SGCC,CS,DX,HX	HO, H12, H14, H18, H22, H24, H26, H28, H32, H44, H46 etc.
Paint Coating	4-10 Microns primer + 15 TO 35 microns top Coat (Four Coat System also available - Top & Bottom Side with Primer + Paint)		

R.M.P (REGULAR MODIFIED POLYESTER)

Regular Modified Polyester is most widely-used coating with durable Polyester paint and heat dried. It is applied to interior/exterior materials with no heavy drawings. RMP coated products are used for exterior panels and interior design purposes that do not require excessive processing. It generally displays superior workability, durability and weather resistance and used for a variety of purposes; offered in a wide array of colours and degrees of polish. Matt and wrinkle effect can be added to the top finish.

END USAGE:

- Roofing & siding panels
- Interior Partition
- Building Interior/Exterior
- Sandwich panels
- Roof, Gutter
- Steel furniture
- Shutter, Door, Garage Door, Iron Frame, etc.



S.M.P (SILICON MODIFIED POLYESTER)

Silicon Modified Polyester is a silicon resin modified Polyester paint coated and heat dried. Due to its higher durability than the Regular Polyester, generally applied for building construction. SMP assures economic benefits under circumstances of sea-side or industrial zones.

END USAGE:

Public Construction Material, Sandwich Panel, Corrugated Roof in Industrial Complexes, Airport, etc

H.D.P (HIGH DURABLE POLYESTER)

High Durable Polyester is high weather proof resin is developed with Hydrogenated monomer & Neo structure monomer. Assures similar durability as PVDF, but with more competitive price and advantages of various colours & gloss. Can be coated into a various pattern, inspired by customers' needs.

END USAGE:

Metal Exterior, Plant, Roof, Gutter, Roof, Industrial Building, etc.

P.V.D.F (POLY VINYLIDENE FLUORIDE)

Poly Vinylidene Fluoride coating assures high weatherproof against climate and durability, wear resistance & machinability. With PVDF unique painting technique, can be made into a simple mono colour type (Solid/Metal/Mica) as well as in various pattern types. PVDF (fluorine-carbon) coating made of fluorine carbon resin, pigment, ester solvent, after high temperature roasting and baking, the paint is solidified to dry film with super weather resistance. The hydrophilic surface treatment will prevent dusts adhesion on the surface and enable dust to be removed easily.

PVDF coatings are especially resistant to solvents, acids and heat and has low density compared to similar fluoropolymers.

20 years of limited warranty provided depending on the regions.

END USAGE:

- Roofing or building industry (Cladding, Rolling Shutter, Facades, Interior ceilings)
- Defence industry
- Medical industry
- Semiconductor industry
- Fishing industry

PLASTISOL

Vinyl plastisols are dispersion of special, fine particle size PVC resins in plasticizing liquids. These materials are liquid at room temperature, but as the compound is heated in the finish oven, fusion takes place and the liquid is converted into a tough, homogeneous mass.

The benefits of plastisol coil coating are numerous. Plastisol coil coating can add color, cushion, texture, safety, and quiet to the surface of your product or part, while simultaneously resisting abrasion, corrosion and electricity. Heat or light stabilizers, flame retardants, bonding agents and other additives are available to meet a variety of specifications including Automotive and Military applications.

Plastisol coating can offer properties such as non-slip, cushioning, color coding, electrical insulation, abrasion resistance, impact resistance, weather and corrosion resistance.

DIFFERENCE BETWEEN RMP AND PVDF PAINTS

		RMP	PVDF
General Information	Resin System	Polyester & Melamine	Polyvinylidene Fluoride & Acrylic
	Film Formation	Cross linking	Fusion
	Peak Metal Temperature	224-235°C	249-254°C
Physical Properties	Primer & Coating Thickness	Polyurethane / Polyester Primer at 4-6 microns	Polyurethane Primer at 5-7microns
	Topcoat & Coating thickness	18-20	20-22
	MEK DOUBLE RUB	100 D/R Pass	100 D/R Pass
	T-BEND	2-3T	0-1T
	REVERSE IMPACT	13J (No paint Removal)	13J (No paint Removal)
	Cross-Hatch adhesion	No paint removal	No paint Removal
	PENCIL HARDNESS	Fmin	Bmin
	Water boil adhesion	Pass	Pass
Accelerated Weathering test Performance	Humidity Resistance (HDG)	No blistering, Peeling, Cracking, loss of gloss or softening of the finish after 1000hrs of exposure to 100% Humidity at 100+/-5°F.	No blistering, Peeling, Cracking, loss of gloss or softening of the finish up to 2000hrs of exposure to 100% Humidity at 100+/-5°F.
	QUV	QUV-A UV cycle – 4hrs at 75°C Condensation – 4 hrs at 50°C Colour change is not more than 5 NBS unit as per ASTM D 2244-89 no chalking greater than #2 rating as per AS1580-481-11, Gloss retention is not greater than # 3 rating as per AS1580-481-5	QUV-B UV cycle – 4hrs at 50°C Condensation – 4 hrs at 40°C Colour change is not more than 5 NBS unit as per ASTM D 2244-89 no chalking greater than #2 rating as per AS1580-481-11, Gloss retention is not greater than # 3 rating as per AS1580-481-5
		No blistering and adhesion loss after 1000 UV hrs exposure. Note: performance is based on colour, pigmentation chemistry dependant	No blistering and adhesion loss after 1000 UV hrs exposure. Note: performance is based on colour, pigmentation chemistry dependant
Chemical Resistance	Salt Spray resistance (HDG)	Sample subjected to 5% neutral salt solution spray exhibit no blistering after 1000 hrs of exposure.	Sample subjected to 5% neutral salt solution spray exhibit no blistering after 2000 hrs of exposure.
	30 minutes exposure to 10% HCL solution (spot test)	No colour change and no blisters	No colour change and no blisters
	30 minutes exposure to 5% NaOH solution.	No colour change and no blisters	No colour change and no blisters
	Film Integrity	10 YEARS	20 YEARS
	Chalk retention ASTM D4214 Method A	Rating >2	Rating >4

PACKING PICTURES



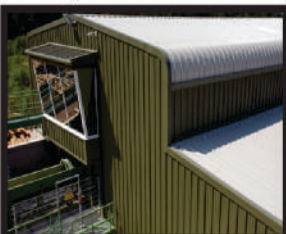
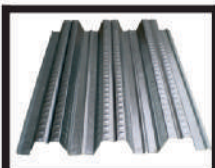
TESTING

We have our own Physical & Chemical Testing Center Lab. to guarantee our product quality. Our test items & instrument fully meet international standards.

- SALT SPRAY TEST
- LOCK FORMER TEST
- ZINC COATING TEST
- DFT TEST
- BEND TEST
- TENSILE STRENGTH TEST
- IMPACT TEST
- CUPPING TEST
- CROSS HATCH TEST
- PENCIL HARDNESS TEST
- MEK TEST



APPLICATIONS





DANA GROUP OF COMPANIES (IRON & STEEL DIVISION)

(An ISO 9001:2015 Certified Company)

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