SuperDyma®

STRUNK

Highly Corrosion Resistant Material







PRODUCTS AND INNOVATIONS CABLE SUPPORT SYSTEM









WHAT MAKES US SJ Trunk DIFFERENT?



Working together **with our value suppliers** as a partnership

We constantly source for **new technologies** to incorporate into our product portfolio and able to stay ahead to provide **most economical and optimum** solution to customers.



And we emphasis solution that will not cause damage to environment.









CABLE SUPPORT SYSTEMS The Way Forward

HDG process has been around for many years. Most conventional cable support system products ie cable trays, trunks and ladders are made by mild steel and coated by zinc in HDG process.

HDG has served the world well.









1. Environmental pollutions

- a. air pollution
- b. water pollution
- c. soil pollution
- **2. Surface finishing quality Rough with Sharp Spot**
 - a. Safety hazard to installer
 - b. Peel off cable insulation
- 3. HDG usually found in remote area
 - a. Logistic cost and time
 - **b. Increase the unpredictable lead time**
- 4. Consumer not getting the full value of what they are paying for.







The Steel industry is undergoing a radical / remarkable transformation.

Questions: Should you put up with HDG or it is time to switch to a new material?

A material that comes with all the HDG properties and better, but minus the shortcomings?











New Generation of high corrosion-resistant coated steel sheet by:

NIPPON STEEL CORPORATION

SuperDyma is a new type of highly corrosion-resistance coated steel sheet with a coating composition consisting of zinc as the main substrate in combination with aluminum (about 11%), magnesium (about 3%) and a trace amount of silicon.









Coating Layer composition and Corrosion Resistance (Salt spray Test)

Specimen	Specimen Type of coating		Thickness	Test conditions: Cyclic corrosion test (JASO M600-01 method)
Hot-dip Zn-coated sheet	Zn	Special chromate treatment	1.6mm	Repetition of (1) to (3) as a cycle
SuperDyma	Zn-11%Al-3%Mg-0.2%Si			① Salt spray: 2 hours (5% NaCl, 35°C)
				 ② Drying: 4 hours (60°C) ③ Wetting: 2 hours (50°C, humidity 95% or more)
		90 cycles		180 cycles
Hot-dip Zn-coated she	et			
SuperDyma				







CABLE SUPPORT SYSTEMS SALT SPRAY TEST (SuperDyma)

The second se	2018CE0342		
Inis Test Report refers International Sdn. Bhd. forms (including but not Sdn. Bhd. Please refer of	only to samples submitted by the applicant to SI This test (eport shall not be reproduced, except in limited to advertising purposes) without written ap overleaf of Page 1 for Conditions Relations To The	IRIM QAS International Sdn. Bhd. and tested by SIRIM QAS a full and shall not be used for any purpose by any means or opproval from the Managing Director, SIRIM QAS International Use of Test Report	REPORT NO. : 2018CE0342
Test Results			This "fest Report refers only to samples submitted by the applicant to SIRIM CAS International Sdn. Bhd, and testad by SIRIM International Sdn. Bhd. This Usel report shall not be reporticed, except in full and shall not be used for any purpose by any mean forms (including but not limited to advertising purposed) without written approval from the Managing Director, SIRIM CAS Internation for the structure of t
Product : Brand :	SuperDyma SuperDyma™		Panels' Photo
Marking : Size :	SD 70 mm x 150 mm		
Test Method :	ASTM B117 - 16: Standard Pra Apparatus	actice for Operating Salt Spray (Fog)	Treasure of Treasure 1
Test condition:			
Duration of exposur Temperature expos Salt solution used pH of collected solu Volume of salt collect	re : 2000 hours ure zone : 35%C : 5% of NaCl tion : 6.5 - 7.2 cted in ml/h/80 cm2 : 1 - 2 ml/hr		
No.	Type of Evaluation	Result	
1. Red Rust E Rust Grade	valuation criteria at 2000 hours, *	10	
Note: - ASTM D610	0-08 Standard Practice for Evaluating Degree	e of Rusting on Painted Steel Surfaces	
	Table 1 Scale and Description	of Rust Ratings	PRODUCT : SUPERDYMA CONTROL BRAND : SuperDyma TM
	10 Less than or equi	al to 0.01%	CEST.TSD.SQASI
	9 Greater than 0.01	1% and up to 0.03%	SuperDyma sample at 2000 hours of salt spray exposure according to ASTM B117
	8 Greater than 0.03	3% and up to 0.1%	
	6 Greater than 0.39	% and up to 1.0%	
	5 Greater than 1.09	% and up to 3.0%	
	4 Greater than 3.09	% and up to 10.0%	
	2 Greater than 16.0	0% and up to 33.0%	\cap
	1 Greater than 33.0	0% and up to 50.0%	
	0 Greater than 50.0	1%	Onentine
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		Streing p	
		Chernella Consumer	Community 2 Contention







CABLE SUPPORT SYSTEMS Salt Spray Test (HDG)

REPC This Te Internati forms (ii Sdn. Bh	ORT NO. : 201 at Report refers only onal Sdn. Bhd. This reluding but not limi d. Please refer over	8CE0344 / to samples submitted by the istat report shall not be repro- ted to advertising purposes) w leaf of Page 1 for Conditions F	applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS fueed, except in full and shall not be used for any purpose by any means or thout written aporval from the Managing Director, SIRIM QAS International leinting To The Use of Test Report	REPORT NO.: 2018/CE0344 This Test Report refers only to samplas submitted by the applicant to SIRIM QAS international Sdn. Bhd. and tested by SIRIM International Sdn. Bhd. This test report shall not be reproduced, except in full and shall not be used for any purpose by any me forms (including but not limited to advertising purpose) without written approval from the Managing Director, SIRIM QAS Internation Sdn. Bhd. Process refer overside of Pase 1 for Conditions Relations Relations The Use of Test Report.
Test I Produ Brand Marki Size Test I Test I Duratio Tempo Salt so	Results L : H ng : H . 7/ Method : A A condition: on of exposure resure exposure fution used	ot-Dip Galvanized Gl Gl D mm x 150 mm STM B117 – 16: Stan pparatus 2 zone : 2000 2 zone : 5% o	dard Practice for Operating Salt Spray (Fog) hours f NaCl	Panels' Photo
pH of (Volum No. 1.	collected solution e of salt collecte T Red Rust Eva Rust Grade*	1 :6.8 d in ml/h/80 cm2 : 1 ml/l ype of Evaluation	r Result	
Voto:	* ASTM D610-0	8 Standard Practice for Eva Table 1 Scale and Rating Number	iluating Degree of Rusting on Painted Steel Surfaces I Description of Rust Ratings Percent of Surface Rusted	PRODUCT : HOT-DIP GALVANIZED BRAND :: HGI ASTM B 117 - SALT SPRAY TEST AFTER 2000 HOURS (CESTTSDS:OSA)
		10 Le 9 Gr	ss than or equal to 0.01% eater than 0.01% and up to 0.03%	
			ester than 0.03% and up to 0.1%	HGI sample at 2000 hours of salt spray exposure according to ASTM B117
		8 Gr	eater than 0.00% and up to 0.1%	
		8 Gr 7 Gr	eater than 0.1% and up to 0.3%	
		8 Gi 7 Gr 8 Gr 5 Gr	eater than 0.1% and up to 0.3% eater than 0.1% and up to 0.3% eater than 0.3% and up to 1.0% eater than 1.0% and up to 3.0%	
		8 Gi 7 Gr 6 Gr 5 Gr 4 Gr	eater than 0.1% and up to 0.3% eater than 0.3% and up to 0.3% eater than 0.3% and up to 1.0% sater than 1.0% and up to 3.0% sater than 3.0% and up to 10.0%	
		8 Gi 7 Gr 6 Gr 5 Gr 4 Gr 3 Gr	eater than 0.1% and up to 0.3% eater than 0.3% and up to 0.3% eater than 0.3% and up to 1.0% sater than 1.0% and up to 3.0% sater than 3.0% and up to 10.0% water than 10.0% and up to 10.0%	
		8 Gr 7 Gr 6 Gr 5 Gr 4 Gr 3 Gr 2 Gr	eater than 0.1% and up to 0.3% eater than 0.3% and up to 0.3% eater than 0.3% and up to 0.3% seater than 1.0% and up to 3.0% seater than 10.0% and up to 18.0% seater than 16.0% and up to 33.0% seater than 30% and up to 50.0%	
		8 Gr 7 Gr 6 Gr 5 Gr 4 Gr 3 Gr 2 Gr 1 Gr 0 Gr	eater than 10.0% and up to 0.3% eater than 0.1% and up to 0.3% eater than 0.3% and up to 0.3% eater than 1.0% and up to 3.0% eater than 10.0% and up to 10.0% eater than 10.0% and up to 16.0% eater than 10.0% and up to 33.0% eater than 5.0% and up to 50.0%	Dombourd
		8 Gr 8 Gr 5 Gr 4 Gr 2 Gr 1 Gr 0 Gr	eater than 0.0% and up to 0.3% eater than 0.3% and up to 1.0% eater than 1.0% and up to 3.0% eater than 3.0% and up to 10.0% seter than 10.0% and up to 16.0% eater than 16.0% and up to 18.0% eater than 33.0% and up to 50.0% seter than 50.0%	Reconcert







	HDG	Superdyma	
	SIRIM Test Report No: 2018CE0344, 26th February 2018	SIRIM Test Report No: 2018CE0342, 26th February 2018	
Reference Standard/ Method of Test	ASTM B117-16: Standard Practice for Operating Salt Spray (Fog) Apparatus ASTM D610-08 Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces		
Test Condition	Duration of Exposure: 2000 Hour Temperature of exposure zone: 35°C Salt Solution used: 5% NaCl pH of collected solution : 6.8		
Test Result	Red Rust Evaluation criteria at 2000 hour: Result = 5 (Greater than 1.0% and up to 3.0%)	Red Rust Evaluation criteria at 2000 hour: Result = 10 (Less than or equal to 0.01%)	







Mechanism of Corrosion Resistance Corrosion Protection Mechanism on Cut-end Surfaces and at welded Sections











Mechanism of Corrosion Resistance



Coating Layer composition and Corrosion Resistance (Exposure Test)



The result have shown that SuperDyma has 3-4 times stronger resistance than that of a normal hot-dip galvanized steel sheet with same coating weight.







Same product quality as current chromate SuperDyma®

 Chromate-free SuperDyma® has the same quality as Chromate treatment in terms of Corrosion resistance, appearance, and other quality aspects.
 In short, Chromate –free SuperDyma® can achieve both eco-friendliness and high quality.

Environmental friendly

 Chromate-free SuperDyma® is definitely environmental friendly compared to Chromate treatment simply because we don't need to use chromate.
 If you change into chromate-free SuperDyma®, we can issue the document called ICP data which can prove that our products comply with RoHS directive.









CONCLUSIONS "Why is SuperDyma a Wise Choice"

Key Benefits of SuperDyma Product

- **QUALITY:** Better corrosion resistance compared to HDG zinc coated
- PRODUCT DELIVERY: Faster and predictable lead time, strong supply chain
- **COST:** Lower than HDG zinc coated, stainless steel and aluminum
- USER's ADDITIONAL PROFIT: less maintenance and less downtime
- ENVORNMETAL: ROHS Compliance
- SAFETY: Unlike HDG finishing, SuperDyma surface is smooth and hard, less accident
- **AREA of APPLICATIONS:** Suitable for indoor and outdoor, above ground and underground













AUTHORIZED DISTRIBUTORSHIP

- 1) Material support Nippon Steel, genuine quality
- 2) Nicom Steel, Import, Cutting and Shearing, fast and predictable lead time
- 3) With our group of Product Development Engineers and Quality Controllers, we supply high quality CSP which suit client's application environment



Authorized Distributorship From Nippon Steel & Sumitomo Metal









Outdoor Exposure Case Studies SuperDyma vs Hot-dip galvanized zinc coated



Installation area : Underground train tunnel Established in Year 2011 Photo taken in Year 2013







Outdoor Exposure Case Studies SuperDyma vs Hot-dip galvanized zinc coated









Outdoor Exposure Case Studies SuperDyma vs Hot-dip galvanized zinc coated









Exposure Case Studies SuperDyma vs Stainless steel









Project Reference





Installation area : Bridge Established in Year 2018









Installation area : Solar Farm Established in Year 2018







Field Of Application











Field Of Application











Field Of Application







(Corporate Office)



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