CORR-ZE™ 100 & 200 TEST REPORT

Date	22/02/2022
Test Method	ISO8502-6, ISO8502-9
Product	Corr-Ze™ 100 & 200
Abrasive	GMA Garnet 30/60 Mesh
Client	Blast Abrasive Supply Sdn Bhd
Owner / Project	Internal Trials
Supplier	CRW Consulting & Distribution
Manufacture	Corrosion Innovations
Test Substrate	Carbon Steel Test Panel
Location	CRW, 4020 Strawberry Rd, Pasadena, TX 77504
Attendance	1. CRW, Jeremi Day, Gregg Taney 2. Corrosion Innovations, Jim Knocke 3. Blast Abrasives Supply: Aaron Williams

Test Result

Inspection Criteria	Observation		Remarks
	Requirement	Actual	
Corr-Ze™ 100			
Soluble salt content (by conductivity) ISO 8502-6 (Bresle patch method) ISO 8502-9 (water-soluble salts by conductivity)	<20 mg/ m^2	**Pass** Substrate prior to blasting: 49 mg/ m^2 Substrate after blasting: 77 mg/ m^2 Substrate after washdown with Corr-Ze™ 100: 20 mg/ m^2	Abrasive blasting using alluvial garnet increased the surface salt contamination from 49 mg/ m^2 to 77 mg/ m^2 After washdown with Corr-Ze™ 100 (100:1) the salt contamination reduced from 77 mg/ m^2 down to 20 mg/ m^2
Flash Rusting Time (visual)	> 3 days	**Pass**	No rust back after 3 days. Small rust back after 7 days – only in the pitted areas.

Corr-Ze™ 200			
Soluble salt content (by conductivity)	<20 mg/ m^2	**Pass** Substrate prior to blasting: 226 mg/ m^2 Substrate after Corr-Ze™ 200: 7 mg/ m^2	After application of Corr-Ze™ 200 salt contamination reduced from 226 mg/ m2 down to 7 mg/ m^2
Rust Removal	Nil rust	**Pass** No rust visible on the surface	Application of Corr-Ze™ 200 completely removed all surface rust and substrate return to the original post blast condition

Conduct by:
Jeremi Day
NCCER Certified Industrial Applicator
CRW

Inspector:
Jeremi Day
NACE CIP L3: 13487
CRW

Witnessed by:
Aaron Williams
SSPC PCI L2: 96931
Blast Abrasives Supply

Abrasive Blasting Equipment, Corr-Ze™ 100

Conductivity (Lab Water): 0 µS/ cm

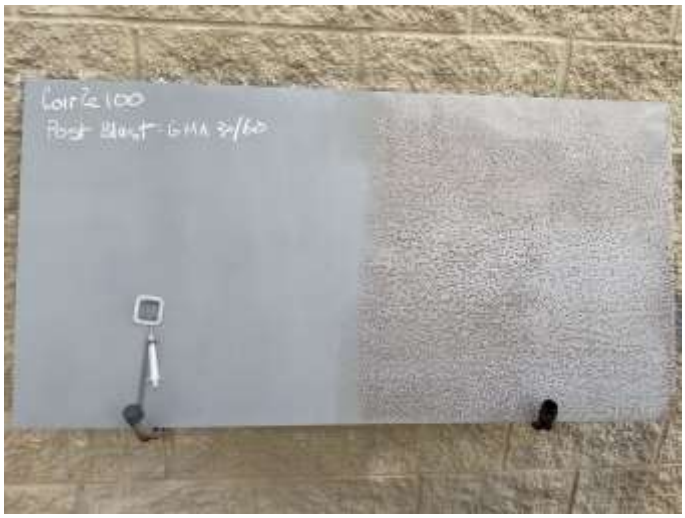
Bresle Test: 3ml

Substrate Test Panel:
Flash rust

Substrate Test Panel:
Bresle Results 41µS/ cm, 49 mg/ m^2

Dry Blasting with GMA Garnet 30/60

GMA Garnet 30/60



After Blasting Panel GMA Garnet 30/60

After Blasting Panel:
Bresle Result: 64 µS/ cm, 77 mg/ m^2

High Pressure Washing
Pressure: 3000psi

Corr-Ze™ 100 Wash Down
Corr-Ze™ 100 (100:1)

Corr-Ze™ 100:
After washdown

Corr-Ze™ 100:
Bresle Result: 17 µS/ cm, 20 mg/ m^2

Corr-Ze™ 100:
7 days after washdown

Corr-Ze™ 200 (gel)

Substrate:
Medium Rust

Substrate:
Bresle Result: 188 µS/ cm, 226 mg/ m^2

Application Corr-Ze™ 200 (gel)
WFT 20 mils

Washdown with Corr-Ze™ 100 (100:1)

After application Corr-Ze™ 200 (gel) & washdown with Corr-Ze™ 100
Curing time: 20 minutes

After application Corr-Ze™ 200 (gel) & washdown with Corr-Ze™ 100
Bresle Result: 6 µS/ cm, 7 mg/ m^2

Substrate after application of Corr-Ze™ 200 (gel)

Substrate after application Corr-Ze™ 200 (gel)

CORR-ZE™ 100 & 200 TEST REPORT

Date	28/03/2022
Test Method	Elcometer 142 Dust Assessment in Accordance with ISO 8502-3, Surface Cleanliness Standard
Product	Corr-Ze™ 100 & 200
Abrasive	Black Diamond Copper Slag (Iron Silicate)
Client	Blast Abrasive Supply Sdn Bhd
Owner / Project	Internal Trials
Supplier	CRW Consulting & Distribution
Manufacture	Corrosion Innovations
Test Substrate	Carbon Steel Test Panel
Location	CRW, 4020 Strawberry Rd, Pasadena, TX 77504
Attendance	1. CRW, Nathan Poche 2. Corrosion Innovations, Jim Knocke 3. WOYT Industries LLC, Bryce Perry 4. Blast Abrasives Supply: Aaron Williams, P. Naren

Test Result

Inspection Criteria	Observation		Remarks
	Requirement	Actual	
Dust Level – After Blasting with Copper Slag			
Elcometer 142 Dust Assessment in Accordance with ISO 8502-3	Dust Quantity Rating: <2	**FAIL** Test 1: Dust Quantity 5 Description 4 Test 2: Dust Quantity 4 Description 4	Dust quality and size very high after blasting with Copper Slag
Surface Standard	SSPC SP 5 (White Blast Cleaning)/ SA 3	**Fail** SSPC SP 6 (Commercial Blast Cleaning) SA 2	Copper Slag did not achieve White Metal, large amount of residual staining remaining on the surface.
Dust Level – After Water Blasting @3000psi with 1% Corr-Ze™100			
Elcometer 142 Dust Assessment in Accordance with ISO 8502-3	Dust Quantity Rating: <2	**PASS** Test 3: Dust Quantity 1 Description 0 Test 4: Dust Quantity 1 Description 1	Water blasting with 1% Corr-Ze™100 dramatically reduces dust reading to almost negligible levels. Corr-Ze™100 prevents flash rusting for up to 3 days.

Surface Standard	SSPC SP 5 (White Blast Cleaning)/ SA 3	**Fail** SSPC SP 10 (Near White Blast Cleaning)/ SA 2-1/2	High pressure water blasting with 1% Corr-Ze™100 did not achieve White Metal, residual staining remaining on the surface.
After Application of Corr-Ze™200			
Surface Standard	SSPC SP 5 (White Blast Cleaning)/ SA 3	**Pass** SSPC SP 5 (White Blast Cleaning)/ SA 3	Application of Corr-Ze™200 removed all the staining.

Conducted by:
Nathan Poche

Inspector:
Bryce Perry
NACE CIP 3

Witnessed by:
Aaron Williams
SSPC PCI L2: 96931
Blast Abrasives Supply

Black Diamond Iron Silicate

Dry Blasting with Black Diamond Iron Silicate

Substrate After Blasting
Top: Copper Slag
Bottom: original Condition

Dust Test 1
Dust Quantity: 5
Description: 4 (particles between 0.5mm and 2.5mm in diameter)

Dust Test 2
Dust Quantity: 4
Description: 4 (particles between 0.5mm and 2.5mm in diameter)

Water Blasting @ 3000psi with 1% Corr-Ze™ 100
Pressure: 3000psi

Panel after Water Blasting with 1% Corr-Ze™ 100

Elcometer 142 Dust Assessment
In Accordance With ISO 8502-3

Evaluation de la quantité de poussière selon ISO 8502-3 - Staubabschätzung in Übereinstimmung mit ISO 8502-3

Name: Aaron Williams (Nom - Name) Date: 3/28/2022 (Date - Datum) Time: 11 am (Heure - Zeit)

Company: BAS - Internal Trials (Société - Firma) Location: Strawberry Rd, Pasadena. (Lieu - Ort)

Dust quantity rating (Mean): (Quantité de poussière (moyenne) - Staubmengeneinschätzung (Durchschnitt))

Dust particle size: (See table) (Taille des particules de poussière: (voir tableau) - Staubpartikelgröße: (Vgl. Tabelle))

Test 1

Test 2

Test 3

Test 4

Test 5

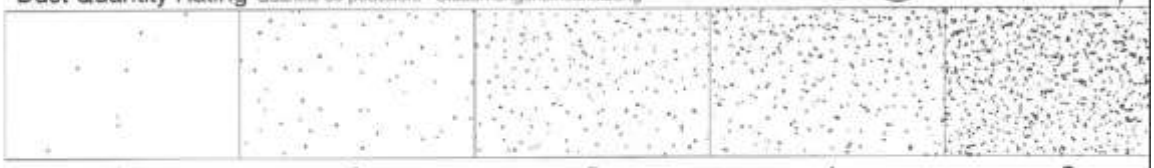
	Dust Quantity	Description
test 1:	5	4
2:	4	4
3:	1	0
4:	1	1

Aaron Will

P. NAREN

Bryce Perry

Dust Quantity Rating Quantité de poussière - Staubmengeneinschätzung



1 2 3 4 5

Surface identification: ..... (Identification surface - Identifizierung der Oberfläche)

Substrate backing used: (Description substrat de base utilisé - Verwendetes Trägermaterial unter Klebeband) ☐ Elcometer 142 (T14219454) ☐ Other ..... (Autre - Andere)

Nature of surface tested: ..... (Nature de la surface testée - Beschaffenheit der getesteten Oberfläche)

Elcometer 142 Dust Assessment In Accordance With ISO 8502-3

Evaluation de la quantité de poussière selon ISO 8502-3 - Staubabschätzung in Übereinstimmung mit ISO 8502-

Class	Description of dust particles
0	Particles not visible under 10x magnification
1	Particles visible under 10x magnification but not with normal or corrected vision (usually particles less than 50um in diameter).
2	Particles just visible with normal or corrected vision (usually particles between 50um and 100um in diameter).
3	Particles clearly visible with normal or corrected vision (particles up to 0.5mm in diameter).
4	Particles between 0.5mm and 2.5mm in diameter.
5	Particles larger than 2.5mm in diameter.

Source ISO 8502-3

Classe	Description des particules de poussière
0	Particules invisible au microscope G x 10
1	Particules visible au microscope G x 10 mais pas en vision normale ou corrigée (généralement, particules intérieures à 50 µm de diamètre)
2	Particules justes visibles en vision normale ou corrigée (généralement, particules entre 50 et 100 µm de diamètre)
3	Particules clairement visibles en vision normale ou corrigée (particules supérieures à 0.5 mm de diamètre)
4	Particules entre 0.5 et 2.5 mm de diamètre
5	Particules supérieures à 2.5 mm de diamètre

Source ISO 8502-3

Kl.	Beschreibung der Staubpartikel
0	Partikelunter 10fach Vergrößerung nicht sichtbar
1	Partikel mit 10facher Vergrößerung sichtbar, aber nicht visuell differenzierbar (i.d.R. Partikel unter 50 µm im Durchmesser)
2	Partikel mit blosem Auge erkennbar (i.d.R. Partikel zwischen 50 µm und 100 µm Durchmesser)
3	Partikel mit blosem Auge klar erkennbar (i.d.R. Partikel bis 0,5 mm im Durchmesser)
4	Partikel zwischen 0,5 und 2,5 mm Durchmesser
5	Partikel größer als 2,5 mm im Durchmesser

Source ISO 8502-3

Notes:

Test 1 e2 : Surface blasted with Copper Slag

3 e 4 : Surface washed down @ 3000psi water + Corr-Ze 100

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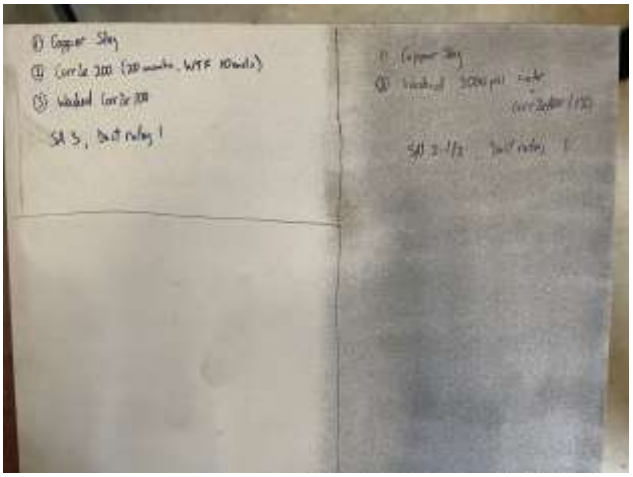
Application of Corr-Ze™ 200 to bottom left corner

Test Panel After Application of Corr-Ze™ 200 Bottom Left Corner



Comparison or Sections Corr-Ze™100 and Corr-Ze™ 200 Applications

Top Left: Corr-Ze™200
Right: Corr-Ze™100
Bottom Left: Original Condition