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# **Test Certificate**

FiTechnic International

Doha Doha **QATAR**  Report Number Q800093

1 : Issue

Page

1 of 1

Order Number Quotation No.: QQ20324 Date Tested 07/01/18

Date Reported 15/01/18

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ilosteu igu.n.

Mr. Afnas Chiralakkandi

Item

Attn:

P.M.I Testing for Clamp

Specification

Client Requirement

P.M.I Client Requiren	nent			
	Position	Details	Comments	
001:Lab XRF Analysis	N/A	C1 amp	See Below	

Item 001:

Material Match: SS316

Elements:

%Mo = 2.05

%Ni = 9.66

%Mn = 1.45

%Cr = 16.59

**Certficate Comments** 

----- End of Text -----

Tested by

Exova - Qatar

Am est con confirm Construction

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For and on authority of Exova Exova (Qatar) L.L.C.

Witnessed by

**Client Representative** 

EXCVE Exeva (Qater) LLC CR No 29676 P O Box 23650 Dona Qator Tel +974 469 3262 Fax +974 466 3245 SUNIL PULAGAM Sr. Metallurgist

Sample: Double glazed, partition wall system, incorporating fixed, vision glass panels.

Glass: 15.52 mm thick, laminated glass (8 mm thick, tempered + 1.52 mm PVB interlayer + 6 mm thick, tempered) on the outer layer, 15.52 mm thick, laminated glass (8 mm thick, tempered + 1.52 mm PVB interlayer + 6 mm thick, tempered) on the inner layer with a 60 mm air gap.

Sample Area, S

See drawing no. Zittire-100 15.52mm in Appendix A for further details.

Sample Size: 2.2 m high x 2.00 m wide. Source Room Volume: 180.0 m<sup>3</sup>

Receiving Room Volume:

180.0 m<sup>3</sup> 202.0 m<sup>3</sup>

Test Conditions: Temp. (±0.7 °C) RH (±3.0%) Atm (±0.5 mbar) Source Room: 21.0 30 1010

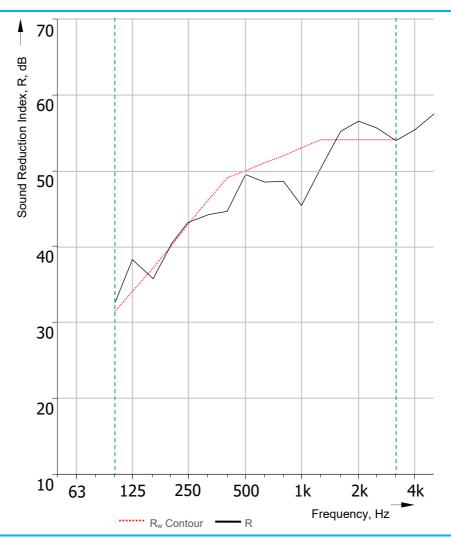
Source Room: 21.0 30 1010 Receiving Room: 20.8 30 1010



 $4.4 \text{ m}^2$ 

Al Futtaim Element Materials Technology Dubai L.L.C Facade Testing & Advisory Services Division

Frequency	R		
f	1/3 Octave		
Hz	dB		
50	-		
63	-		
80	-		
100	32.8		
125	38.1		
160	35.8		
200	40.5		
250	43.1		
315	44.4		
400	44.8		
500	49.6		
630	48.6		
800	48.7		
1000	45.6		
1250	50.1		
1600	55.2		
2000	56.7		
2500	55.7		
3150	54.1		
4000	55.5		
5000	57.6		



Rating according to BS EN ISO 717-1:2020, over the frequency range 100 Hz – 3150 Hz:

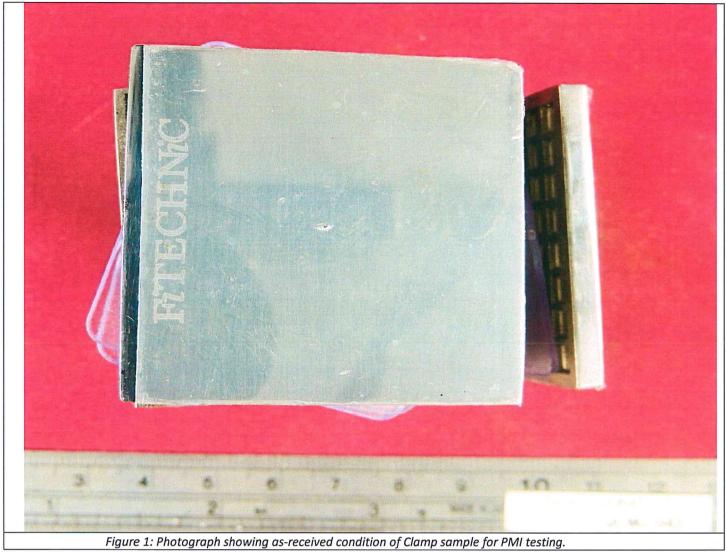
Rw (C;Ctr) = 50 (-1; -4) dB

 $C_{100-5000} = -0 \text{ dB}$ 

 $C_{tr100-5000} = -4 \text{ dB}$ 

Sum of unfavourable deviations = 24.3 dB

Evaluation based on laboratory measurement



Exova Ref: Q800093 Issue1 (06)

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## **Test Certificate**

FiTechnic International

Doha Doha **QATAR**  Report Number Q800094

: Issue

Page 1 of 1 Order Number Quotation No.: QQ20324 Date Tested 07/01/18

Date Reported 15/01/18

Attn:

Mr. Afnas Chiralakkandi

%Ni = 9.23

%Mn = 0.48

Item

P.M.I Testing for Pipe-Glass Connector

Specification

Client Requirement

P.M.I Client Requires	neni		
	Position	Details	Comments
001:Lab XRF Analysis	N/A	Pipe-Glass Connector	See Below
Item 001: Material Matc	h: SS316		

Certficate Comments

%Mo = 2.14

----- End of Text ------

%Cr = 15.83

Tested by

Exova - Qatar

For and on authority of Exova Exova (Qatar) L.L.C.

Witnessed by

**Client Representative** 

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Report a

Exeva (Qadra) LLC CR No 29676 F O Box 23650 Doha Qa+00777 Tel+974 460 3262 Fax+974 460 3245

SUNIL PULAGAM Sr. Metallurgist

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Exova Ref: Q800094 Issue1

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## **Test Certificate**

FiTechnic International

Doha Doha **QATAR**  Report Number Q800096

: Issue

Page 1 of 1 Order Number Quotation No.: QQ20324 Date Tested 07/01/18

Date Reported 15/01/18

Attn:

Mr. Afnas Chiralakkandi

Item

P.M.I Testing for Pipe-Valve Connector

Specification

Client Requirement

P.M.I Client Requires	nent		
	Position	Details	Comments
001:Lab XRF Analysis	N/A	Pipe-Wall Connector	See Below
Item 001: Material Mate	h · \$\$316		

Elements:

%Mo = 2.24

%Ni = 9.67

%Mn = 0.70

%Cr = 17.02

Certficate Comments

----- End of Text ---

Tested by

Exova - Qatar

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upns. Ele: 3.5%

Munil este.

Witnessed by

**Client Representative** 

Exeva (Qater) LLC CR No 29676 D Box 23650 Doha Qater +974 460 3262 Fax +974 460 3245

For and on authority of Exova Exova (Qatar) L.L.C.

> SUNIL PULAGAM Sr. Metallurgist



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## **Test Certificate**

FiTechnic International

Doha Doha QATAR Report Number Q800035

: Issue 1

Page

1 of 1

Order Number Quotation No.: QQ20324

Date Tested 07/01/18 Date Reported 15/01/18

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Toste :

Attn:

Mr. Afnas Chiralakkandi

Item

- P.M.I Testing for Stainless Steel Components

Specification

- Client Requirement

P.M.I Client Require	ement		
	Position	Details	Comments
001:Lab XRF Analysis	N/A	Shower Hinge	See Below
T. 001 Water 1-1 Water	CC21C		

Item 001:

Material Match: SS316

Elements:

%Mo = 1.98

%Cr = 16.93

Certficate Comments

----- End of Text ---

Tested by

Exova - Qatar

Witnessed by

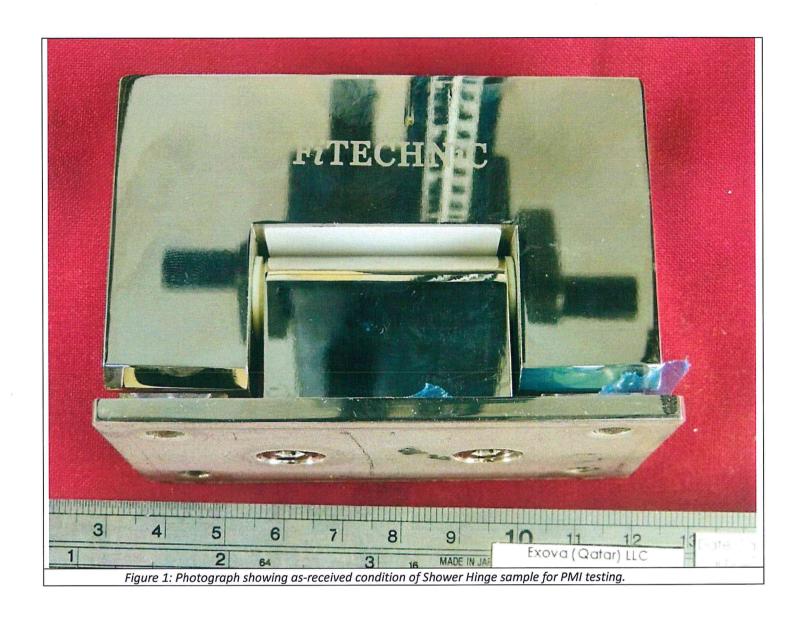
Client Representative

Mulojan

Park Comment

For and on authority of Exova Exova (Qatar) L.L.C.

SUNIL PULAGAM
Sr. Metallurgist



Exova Ref: Q800035 Issue1

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## **Test Certificate**

FiTechnic International

Doha Doha **QATAR**  Report Number Q800095

: Issue

Page

1 of 1

Order Number Quotation No.: QQ20324

Date Tested 07/01/18

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(06)

2010 Dr. Mir . . .

Date Reported 15/01/18

Attn:

Mr. Afnas Chiralakkandi

Item

P.M.I Testing for Handle

Specification

Client Requirement

P.M.I Client Requirer	nent		
	Position	Details	Comments
001:Lab XRF Analysis	N/A	Handle	See Below

Item 001:

Material Match: SS316

Elements:

Mo = 2.18

%Ni = 10.59

%Mn = 1.11

%Cr = 16.87

Certficate Comments

----- End of Text ----

Tested by

Exova - Qatar

For and on authority of Exova Exova (Qatar) L.L.C.

Witnessed by

**Client Representative** 

Exeva (Qater) LLC CR No 29676 P O Box 23650 Dona Qater Tel+974 469 3282 Fax+974 469 3245

SUNIL PULAGAM Sr. Metallurgist

Registered Office: Exova (Qatar) L.L.C. PO Box 23650, Doha, State of Qatar. Commercial Licence No. 29676
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These results pertain only to the item(s) tested as sampled by the client unless otherwise indicated.



#### Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements In Accordance With BS EN ISO 10140-2:2021

Client: FITECHNIC International Date of Test: 4 December 2024

Sample: Double glazed, partition wall system, incorporating fixed, vision glass panels.

Glass: 15.52 mm thick, laminated glass (8 mm thick, tempered + 1.52 mm PVB interlayer + 6 mm thick, tempered) on the outer layer, 15.52 mm thick, laminated glass (8 mm thick, tempered + 1.52 mm PVB interlayer + 6 mm thick, tempered) on the inner layer with a 60 mm air gap.

See drawing no. Zittire-100 15.52mm in Appendix A for further details.

2.2 m high x 2.00 m wide. Sample Size:

Sample Area, S

4.4 m<sup>2</sup>

Source Room Volume: 180.0 m<sup>3</sup> Receiving Room Volume:

Source Room:

Receiving Room:

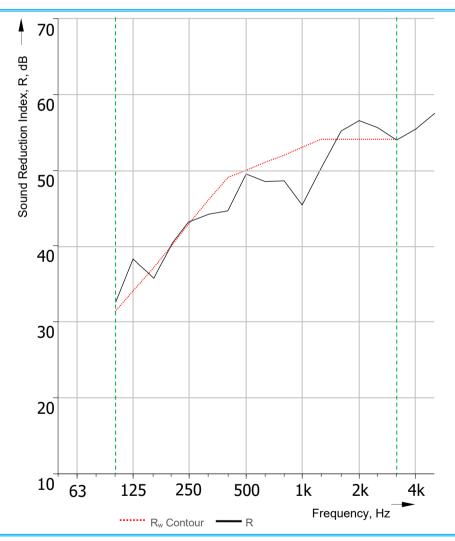
202.0 m<sup>3</sup> Test Conditions:

Temp. (±0.7 °C) RH (±3.0%) Atm (±0.5 mbar) 30 1010 21.0 20.8 30 1010

الفطين المنت element Al-Futtaim

Al Futtaim Element Materials Technology Dubai L.L.C Facade Testing & Advisory Services Division

Frequency	R		
f	1/3 Octave		
Hz	dB		
50 63 80			
100	32.8		
125	38.1		
160	35.8		
200	40.5		
250	43.1		
315	44.4		
400	44.8		
500	49.6		
630	48.6		
800	48.7		
1000	45.6		
1250	50.1		
1600	55.2		
2000	56.7		
2500	55.7		
3150	54.1		
4000	55.5		
5000	57.6		



Rating according to BS EN ISO 717-1:2020, over the frequency range 100 Hz - 3150 Hz:

Rw(C;Ctr) = 50(-1; -4) dB $C_{100-5000} = -0 \text{ dB}$  $C_{tr100-5000} = -4 dB$ 

Sum of unfavourable deviations = 24.3 dB Evaluation based on laboratory measurement

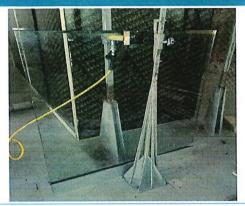
AFE Sample Reference: DA4779D Name of Test Institute: Al Futtaim Element MTD L.L.C

Tested by: Muhammed Ali Irshad

> DLR3447 Rev.0 Page 8 of 13



#### 4. PICTURES TAKEN DURING THE TEST "Concentrated Load Test"



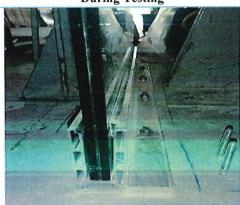
Prior testing



**During Testing** 



Imposed Load



No sign of damage and the profile was fixed properly to the floor

Divers	Distributed Load Test		Concentrated Load Test	
Phase	Deflection	Load	Concentrated Load Test	
Height Where the Load Was Applied	110		110	
Imposed Load	4.0 kN		0.89 kN	
Initial Value	0			0
Deflection value at First Increment	25 mm	12.31bar	0.25	2.5 bar
Deflection value at Second Increment		24.62 bar	5.45	5 bar
Deflection value at Third Increment	> 25	36.93 bar	15.04	7.5 bar
Deflection value at Fourth Increment	>25 mm	49.15 bar	20.90	10 bar
Deflection value at Full Load		60	25 mm	12.31 bar
Final Result	Pass		Pass	
Conclusion	Pass			