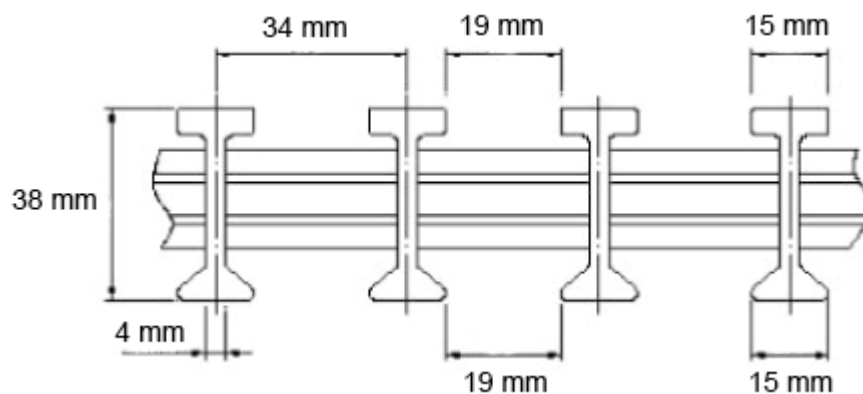


*Phenolic Grating*  
*Document package*



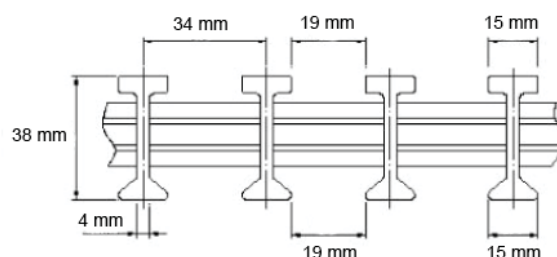
Stangeland Glassfiber Produkter AS  
Bedriftsvegen 33  
4353 Klepp Stasjon, Norway  
Telephone: +47 51 78 60 90  
[www.glassfiber.no](http://www.glassfiber.no)  
E-mail: [post@glassfiber.no](mailto:post@glassfiber.no)

# PRODUCT SHEET

Profile GRP Grating  
Article no. 15513  
Thickness 38 mm  
Profile distance 34 mm  
Panel 1,0 x 6,0 m  
Surface: Applied grit



Panel size : 1000 x 6000 mm  
Height : 38 mm  
Opening : 34 mm  
Open area : 55%  
Weight : 15,7 kg/m<sup>2</sup>  
Weight per plate : 94,2 kg  
Surface : Applied grit  
Colour : Black (RAL 9004)  
Resin : Phenolic  
Fire retardance : ASTM E84-05, Class 1  
Flame spread: < 25  
Working temperature : -40 °C / 60 °C  
Electric properties : Conductive- EN 13463-1  
EN 50014



| SPAN<br>(mm) | LOAD $\Delta U = \text{kN} / \text{m}^2$ , $\Delta C = \text{kN} / \text{m}$ |     |      |      |      |      |      |      |      |      |      |      |     |     |      | SAFE LOAD<br>kN |
|--------------|--|-----|------|------|------|------|------|------|------|------|------|------|-----|-----|------|-----------------|
|              |  | 3   | 5    | 8    | 10   | 13   | 15   | 20   | 25   | 39   | 50   | 100  | 150 | 200 | 250  |                 |
| 400          | $\Delta U$   | 0   | 0.1  | 0.1  | 0.1  | 0.2  | 0.2  | 0.3  | 0.4  | 0.5  | 0.7  | 1.4  | 2.1 | 2.1 | 3.5  | 504             |
|              | $\Delta C$   | 0.2 | 0.3  | 0.5  | 0.6  | 0.7  | 0.8  | 1.1  | 1.4  | 2.2  | 2.8  | 5.6  | 8.4 | 8.4 | 14.1 | 100             |
| 600          | $\Delta U$   | 0.2 | 0.3  | 0.4  | 0.5  | 0.7  | 0.8  | 1.0  | 1.3  | 2.0  | 2.6  | 5.2  | 7.8 | 7.8 | 13.0 | 217             |
|              | $\Delta C$   | 0.4 | 0.7  | 1.1  | 1.4  | 1.8  | 2.1  | 2.8  | 3.5  | 5.4  | 7.0  | 13.9 |     |     |      | 66              |
| 800          | $\Delta U$   | 0.4 | 0.7  | 1.2  | 1.5  | 1.9  | 2.2  | 2.9  | 3.7  | 5.7  | 7.4  | 14.7 |     |     |      | 124             |
|              | $\Delta C$   | 0.9 | 1.5  | 2.4  | 2.9  | 3.8  | 4.4  | 5.9  | 7.4  | 11.5 | 14.7 |      |     |     |      | 49              |
| 1000         | $\Delta U$   | 1.0 | 1.7  | 2.7  | 3.4  | 4.4  | 5.1  | 6.8  | 8.6  | 13.3 |      |      |     |     |      | 78              |
|              | $\Delta C$   | 1.6 | 2.7  | 4.4  | 5.5  | 7.1  | 8.2  | 10.9 | 13.7 |      |      |      |     |     |      | 38              |
| 1200         | $\Delta U$   | 2.1 | 3.5  | 5.6  | 7.0  | 9.1  | 10.5 | 14.0 |      |      |      |      |     |     |      | 50              |
|              | $\Delta C$   | 2.8 | 4.7  | 7.5  | 9.3  | 12.1 | 14.0 |      |      |      |      |      |     |     |      | 30              |
| 1400         | $\Delta U$   | 3.9 | 6.5  | 10.4 | 12.9 |      |      |      |      |      |      |      |     |     |      | 36              |
|              | $\Delta C$   | 4.4 | 7.4  | 11.8 | 14.8 |      |      |      |      |      |      |      |     |     |      | 25              |
| 1600         | $\Delta U$   | 6.6 | 11.0 |      |      |      |      |      |      |      |      |      |     |     |      | 27              |
|              | $\Delta C$   | 6.6 | 11.0 |      |      |      |      |      |      |      |      |      |     |     |      | 21              |

Deflection in mm as a function of load in kN at open span in mm



SGP-DOC-0002-EN - REV02

## Stangeland Glassfiber Produkter AS

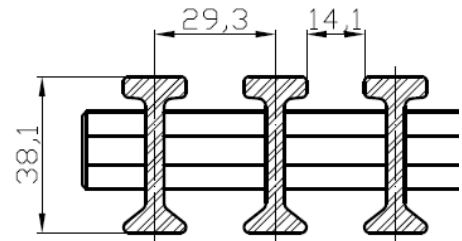
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Telephone: +47 51 78 60 90  
Telefax: +47 51 78 60 91  
NO 981 903 439 MVA  
www.glassfiber.no  
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# PRODUCT SHEET

Profile GRP Grating  
Article no. 15514  
Thickness 38 mm  
Profile distance 25 mm  
Panel 1,0 x 6,0 m  
Surface: Applied grit



|                     |   |                        |
|---------------------|---|------------------------|
| Panel size          | : | 1000 x 6000 mm         |
| Height              | : | 38 mm                  |
| Profile distance    | : | 25 mm                  |
| Opening             | : | 10,4 mm                |
| Open area           | : | 48%                    |
| Weight              | : | 20,7 kg/m <sup>2</sup> |
| Weight per plate    | : | 153,6 kg               |
| Surface             | : | Applied grit           |
| Colour              | : | Black (RAL 9004)       |
| Resin               | : | Phenolic               |
| Fire retardance     | : | ASTM E84-05, Class 1   |
|                     |   | Flame spread: < 25     |
| Working temperature | : | -40 °C / 60 °C         |
| Electric properties | : | Conductive- EN 13463-1 |
|                     |   | EN 50014               |



| SPAN<br>(mm) | LOAD in kN/SQUARE METERS (PSM) - DEFLECTION IN MILLIMETERS |     |     |      |      |      |      |      |      |      |      |     |      |     |     | SAFE<br>LOAD<br>kN |
|--------------|--|-----|-----|------|------|------|------|------|------|------|------|-----|------|-----|-----|--------------------|
|              |  | 3   | 5   | 8    | 10   | 13   | 15   | 20   | 25   | 39   | 50   | 100 | 150  | 200 | 250 |                    |
| 400          | ΔU   | 0,0 | 0,0 | 0,1  | 0,1  | 0,1  | 0,1  | 0,2  | 0,2  | 0,4  | 0,5  | 0,9 | 1,4  | 1,9 | 2,3 | 756                |
|              | ΔC   | 0,1 | 0,2 | 0,3  | 0,4  | 0,5  | 0,6  | 0,8  | 0,9  | 1,5  | 1,9  | 3,8 | 5,6  | 7,5 | 9,4 | 150                |
| 600          | ΔU   | 0,1 | 0,2 | 0,3  | 0,3  | 0,5  | 0,5  | 0,7  | 0,9  | 1,4  | 1,7  | 3,5 | 5,2  | 7,0 | 8,7 | 325                |
|              | ΔC   | 0,3 | 0,5 | 0,7  | 0,9  | 1,2  | 1,4  | 1,9  | 2,3  | 3,6  | 4,6  | 9,3 | 13,9 |     |     | 99                 |
| 800          | ΔU   | 0,3 | 0,5 | 0,8  | 1,0  | 1,3  | 1,5  | 2,0  | 2,5  | 3,8  | 4,9  | 9,8 | 14,7 |     |     | 185                |
|              | ΔC   | 0,6 | 1,0 | 1,6  | 2,0  | 2,6  | 2,9  | 3,9  | 4,9  | 7,7  | 9,8  |     |      |     |     | 74                 |
| 1000         | ΔU   | 0,7 | 1,1 | 1,8  | 2,3  | 3,0  | 3,4  | 4,6  | 5,7  | 8,9  | 11,4 |     |      |     |     | 116                |
|              | ΔC   | 1,1 | 1,8 | 2,9  | 3,7  | 4,7  | 5,5  | 7,3  | 9,1  | 14,2 |      |     |      |     |     | 58                 |
| 1200         | ΔU   | 1,4 | 2,3 | 3,7  | 4,7  | 6,1  | 7,0  | 9,3  | 11,7 |      |      |     |      |     |     | 75                 |
|              | ΔC   | 1,9 | 3,1 | 5,0  | 6,2  | 8,1  | 9    | 12,5 | 15,6 |      |      |     |      |     |     | 45                 |
| 1400         | ΔU   | 2,6 | 4,3 | 6,9  | 8,6  | 11,2 | 13,0 |      |      |      |      |     |      |     |     | 55                 |
|              | ΔC   | 3,0 | 4,9 | 7,9  | 9,9  | 12,8 | 14,8 |      |      |      |      |     |      |     |     | 38                 |
| 1600         | ΔU   | 4,4 | 7,3 | 11,7 | 14,7 |      |      |      |      |      |      |     |      |     |     | 40                 |
|              | ΔC   | 4,4 | 7,3 | 11,7 | 14,7 |      |      |      |      |      |      |     |      |     |     | 32                 |

Deflection in mm as a function of load in kN at open span in mm



# PRODUCT SHEET

Phenolic GRP Stair Treads

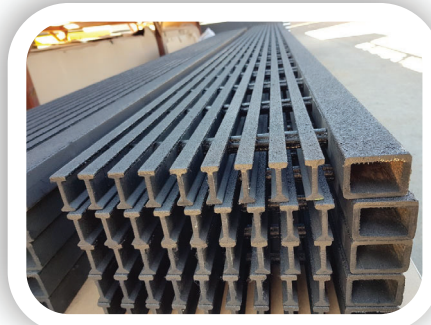
Article no. 15911

Thickness 38 mm

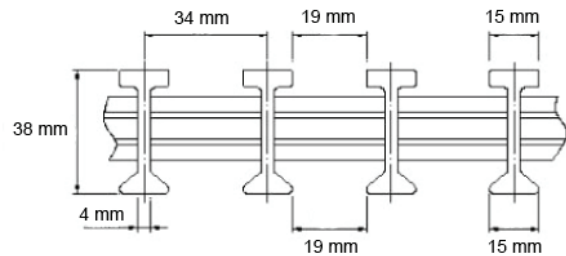
Profile distance 34 mm

Panel 0,310 x 4,00 m

Surface: Gritted



|                     |   |                        |
|---------------------|---|------------------------|
| Panel size          | : | 310 x 4000 mm          |
| Reinforced edge     | : | one side               |
| Height              | : | 38 mm                  |
| Profile distance    | : | 34 mm                  |
| Opening             | : | 19 mm                  |
| Open area           | : | 55%                    |
| Weight              | : | 15,7 kg/m <sup>2</sup> |
| Weight per plate    | : | 19,5 kg                |
| Surface             | : | Applied grit           |
| Colour              | : | Black (RAL 9004)       |
| Resin               | : | Phenolic               |
| Fire retardance     | : | ASTM E84-05, Class 1   |
|                     | : | Flame spread: < 25     |
| Working temperature | : | -40 oC / 60 oC         |
| Electric properties | : | Conductive- EN 13463-1 |
|                     | : | EN 50014               |



| SPAN<br>(mm) | LOAD $\Delta U = \text{kN} / \text{m}^2$ , $\Delta C = \text{kN} / \text{m}$ |     |      |      |      |      |      |      |      |      |      |      |     |     |      | SAFE LOAD<br>kN |
|--------------|--|-----|------|------|------|------|------|------|------|------|------|------|-----|-----|------|-----------------|
|              |  | 3   | 5    | 8    | 10   | 13   | 15   | 20   | 25   | 39   | 50   | 100  | 150 | 200 | 250  |                 |
| 400          | $\Delta U$   | 0   | 0.1  | 0.1  | 0.1  | 0.2  | 0.2  | 0.3  | 0.4  | 0.5  | 0.7  | 1.4  | 2.1 | 2.1 | 3.5  | 504             |
|              | $\Delta C$   | 0.2 | 0.3  | 0.5  | 0.6  | 0.7  | 0.8  | 1.1  | 1.4  | 2.2  | 2.8  | 5.6  | 8.4 | 8.4 | 14.1 | 100             |
| 600          | $\Delta U$   | 0.2 | 0.3  | 0.4  | 0.5  | 0.7  | 0.8  | 1.0  | 1.3  | 2.0  | 2.6  | 5.2  | 7.8 | 7.8 | 13.0 | 217             |
|              | $\Delta C$   | 0.4 | 0.7  | 1.1  | 1.4  | 1.8  | 2.1  | 2.8  | 3.5  | 5.4  | 7.0  | 13.9 |     |     |      | 66              |
| 800          | $\Delta U$   | 0.4 | 0.7  | 1.2  | 1.5  | 1.9  | 2.2  | 2.9  | 3.7  | 5.7  | 7.4  | 14.7 |     |     |      | 124             |
|              | $\Delta C$   | 0.9 | 1.5  | 2.4  | 2.9  | 3.8  | 4.4  | 5.9  | 7.4  | 11.5 | 14.7 |      |     |     |      | 49              |
| 1000         | $\Delta U$   | 1.0 | 1.7  | 2.7  | 3.4  | 4.4  | 5.1  | 6.8  | 8.6  | 13.3 |      |      |     |     |      | 78              |
|              | $\Delta C$   | 1.6 | 2.7  | 4.4  | 5.5  | 7.1  | 8.2  | 10.9 | 13.7 |      |      |      |     |     |      | 38              |
| 1200         | $\Delta U$   | 2.1 | 3.5  | 5.6  | 7.0  | 9.1  | 10.5 | 14.0 |      |      |      |      |     |     |      | 50              |
|              | $\Delta C$   | 2.8 | 4.7  | 7.5  | 9.3  | 12.1 | 14.0 |      |      |      |      |      |     |     |      | 30              |
| 1400         | $\Delta U$   | 3.9 | 6.5  | 10.4 | 12.9 |      |      |      |      |      |      |      |     |     |      | 36              |
|              | $\Delta C$   | 4.4 | 7.4  | 11.8 | 14.8 |      |      |      |      |      |      |      |     |     |      | 25              |
| 1600         | $\Delta U$   | 6.6 | 11.0 |      |      |      |      |      |      |      |      |      |     |     |      | 27              |
|              | $\Delta C$   | 6.6 | 11.0 |      |      |      |      |      |      |      |      |      |     |     |      | 21              |

## Stangeland Glassfiber Produkter AS

Bedriftsvegen 33, N-4353 Klepp Stasjon, Norway

Telephone: +47 51 78 60 90

NO 981 903 439 MVA

www.glassfiber.no

E-mail: post@glassfiber.no

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the FRP Grating**

with type designation(s)  
**PPH 1-1/2" I-60 and MPH 1-1/2" x 1-1/2" x 6" RM**

Issued to

**Chinagrate Composite Structures (Nantong) Co.,Ltd.**  
**Nantong, China**

is found to comply with  
**DNV GL offshore standards**  
**DNV GL rules for classification – Ships**  
**DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations**

## Application :

**For use in locations according to enclosed Structural Fire Integrity Matrix.**

**Application is to be considered and accepted for each case/project.**

Issued at **Høvik** on **2018-11-19**

This Certificate is valid until **2022-05-02**.

DNV GL local station: **Nantong CMC**

Approval Engineer: **Krzysztof Kolakowski**



for **DNV GL**

**Jowita Permoda**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-006175-9**  
Certificate No: **TAF00000KW**  
Revision No: **3**

## Product description

PPH1-1/2" I-60,  
pultruded phenolic fiberglass reinforced plastic grating coated with a skid resistant coating (from Jotun Coatings (Zhangjiagang) Co., Ltd.) on exposed side.

MPH 1-1/2" x 1-1/2" x 6" M,  
moulded phenolic fiberglass reinforced plastic grating coated with a skid resistant coating (from Jotun Coatings (Zhangjiagang) Co., Ltd.) on exposed side.

| Product                                   | Structural Fire Integrity Level (ASTM F3059) | Flame Spread Index (ASTM E84) | Smoke Developed Index (ASTM E84) | Max. Allowable Free Span (ASTM F3059) |
|---|--|-------------------------------|----------------------------------|---------------------------------------|
| PPH 1-1/2" I-60 (PPH60150)                | L2   | 0                             | 100                              | 1120 mm                               |
| MPH 1-1/2" x 1-1/2" x 6" RM (MPH1560412A) | L2   | 0                             | 55                               | 1120 mm                               |

## Application/Limitation

The FRP grating is only evaluated in accordance with fire technical requirements. Other requirements such as strength etc. has to be evaluated in each case.

For use in locations according to the below Structural Fire Integrity Matrix.

Structural Fire Integrity Matrix (ASTM F3059-15)

| Location  | Service  | Fire Integrity  |
|---|--|-----------------|
| Machinery Spaces  | Walkways or areas which may be used for escape, or access for fire fighting, emergency operation or rescue | L1 <sub>1</sub> |
|   | Personnel walkways, catwalks, ladders, platforms or access areas other than those described above          | L3              |
| Cargo Pump Rooms  | All personnel walkways, catwalks, ladders, platforms or access areas                                       | L1              |
| Cargo Holds   | Walkways or areas which may be used for escape, or access for fire fighting, emergency operation or rescue | L1              |
|   | Personnel walkways, catwalks, ladders, platforms or access areas other than those described above          | L0              |
| Cargo Tanks   | All personnel walkways, catwalks, ladders, platforms or access areas                                       | L0 <sub>2</sub> |
| Fuel Oil Tanks  | All personnel walkways, catwalks, ladders, platforms or access areas                                       | L0              |
| Ballast Water Tanks   | All personnel walkways, catwalks, ladders, platforms or access areas                                       | L0              |
| Cofferdams, void spaces, double bottoms, pipe tunnels, etc. | All personnel walkways, catwalks, ladders, platforms or access areas                                       | L0              |
| Accommodation, service, and control spaces                  | All personnel walkways, catwalks, ladders, platforms or access areas                                       | Not permitted   |

(Table continues on next page.)



Job Id: **262.1-006175-9**  
Certificate No: **TAF00000KW**  
Revision No: **3**

(Table continued from previous page.)

| Location  | Service   | Fire Integrity  |
|---|---|-----------------|
| Lifeboat embarkation or temporary safe refuge stations in open deck areas | All personnel walkways, catwalks, ladders, platforms or access areas  | L2              |
| Open Decks or semi-enclosed areas   | Operational areas and access routes for deck foam firefighting systems on tank vessels  | L2              |
|   | Walkways and areas that may be used for escape, or access for firefighting systems and AFFF hose reels, emergency operation, or rescue on MODUs and production platforms including safe access to tanker bows | L2 <sub>3</sub> |
|   | Walkways or areas that may be used for escape or access for fire fighting, emergency operation or rescue other than those used above  | L3              |
|   | Personnel walkways, catwalks, ladders, platforms or access areas other than those described above   | L3              |
|   | Gangway for safe access to bow on tankers according to IMO MSC.62(67)   | L2 <sub>4</sub> |

Footnote:

- 1) If machinery space does not contain any internal combustion machinery, other oil burning, oil heating or oil pumping units, fuel oil filling stations, or other potential hydrocarbon fire sources and has not more than 2.5 kg/m<sup>2</sup> of combustible storage, gratings of L3 integrity may be used in lieu of L1.
- 2) Gratings that are electrically conductive shall be required. Acceptance criteria for resistance per unit length and to earth is: < 0.1 M  $\Omega$  to earth. Test standard ASTM D257-91, ref. DNV GL-CP-0070 "Fibre reinforced thermosetting plastic piping systems - Non-metallic materials
- 3) Tested with furnace temperature curve according to ASTM E119 (i.e. not tested for Hydrocarbon or Jet fire exposure).
- 4) Also required to be tested according to IMO 2010 FTP Code Part 5 and 2 for floor covering (IMO MSC.1/Circ.1504).

This Certificate does not cover testing of the FRP grating subjected to Hydrocarbon or Jet fire exposure. DNV GL recommend that for any area where FRP grating is arranged and with possible exposure to Hydrocarbon or Jet fire, Risk Assessment is conducted to ensure that the use of FRP does not have any negative effect with respect to Escape, Safe Evacuation, Firefighting and Escalation of the original fire incident.

Each product is to be supplied with its manual for installation and maintenance.

## Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.


Test reports:

- No. 01.22384.01.310a[1] dated 03 May 2018,
- No. 01.22384.01.310b[1] dated 03 April 2018,
- No. 01.22383.02.019a dated 28 December 2017,
- No. 01.22383.02.019h dated 28 December 2017,

all from SwRI Southwest Research Institute, San Antonio Texas, USA.

## Tests carried out

Tested according to ASTM F3059-15 and ASTM E-84-16.



Job Id: **262.1-006175-9**  
Certificate No: **TAF00000KW**  
Revision No: **3**

### **Marking of product**

Each FRP grating shall be marked as a minimum with the brand and the appropriate fire rating (L1, L2, L3 or L0). The label shall be molded into the grating or included on a permanently attached label.

### **Periodical assessment**

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.





**Stangeland Glassfiber Produker AS**  
**Bedriftsvegen 33, 4353 Klepp stasjon, Norway**

**PandaDeck Phenolic Grating PPH55150G-Carbon Black**

Manufacturer:  
ChinaGrate Composite Structures (Nantong) Limited  
11 S. Tong Fu Road, NTETDZ  
Nantong, Jiangsu Province,  
People's Republic of China

DNV Nemko Presafe AS has reviewed this product's design and construction based on information given in Product sheet, PandaDeck Phenolic Grating PPH55150G with reference to the Directive 94/EC and the Guidelines on the Application of Directive 94/9/EC.

The conclusion is that this product does not have its own source of ignition and therefore it does not fall within the scope of Directive 94/9/EC.

The product does not have any moving parts, electrical circuits or other parts that can provide an effective ignition source under normal operation. Requirements of other EC Directives may apply to the product.

Oslo, 2016-04-06

Asle Kaastad  
Certification Manager



# Resistance Tests for

EN 13463-1-2001

Non- electrical equipment for potentially  
explosive atmospheres

per

EN 50014:1997

Conducted for

ChinaGrate Composite Structures  
(Nantong) Limited

April 14, 2015

by

**Fowler Associates, Inc.**

**CONSULTING - TESTING LAB - TRAINING COURSES -FORENSICS -EXPERT WITNESS**



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发了

Fowler Associates, Inc.



## ESD Tests for Chinagrate Composite Structures (Nantong) Co., LTD

Material: Glass Reinforced Plastic; HS Code: 3925900

PPH55150-250 x 130mm G-Carbon Black

April 14, 2015

These tests were performed for EN 13463-1-2001

### Non-electrical equipment for potentially explosive atmospheres - Part 1: Basic method and requirements

#### 7.4.4 Equipment Group II

Group II equipment shall be so designed that under conditions of use, maintenance and cleaning, danger of ignition due to electrostatic charges is avoided. This requirement shall be satisfied by one of the following:

a) by suitable selection of the material so that the surface resistance of the enclosure, measured according

to 13.3.4.7 does not exceed 1 G Ohm at  $(23 \pm 2)^\circ\text{C}$  and  $(50 \pm 5)\%$  relative humidity;

13.3.4.7 Surface resistivity test of non-conductive parts of the equipment relevant to the level of protection

The test shall be made in accordance with 23.4.7.8 of EN 50014:1997.

#### Surface Resistance Per EN 50014:1997.

|                    |                                 |          |          |          |            |          |
|--------------------|---------------------------------|----------|----------|----------|------------|----------|
|                    | @50% RH, 73 degrees F, 48 hours |          |          |          | @ 10 volts |          |
| Resistance in Ohms |                                 |          |          |          |            |          |
|                    | 1                               | 2        | 3        | 4        | 5          | 6        |
| Textured           | 6.37E+03                        | 5.96E+03 | 6.03E+03 | 7.15E+03 | 7.67E+03   | 7.59E+03 |
| Smooth             | 2.94E+03                        | 3.39E+03 | 3.84E+03 | 3.48E+03 | 2.68E+03   | 2.85E+03 |
|                    |                                 |          |          |          |            |          |
|                    | Max                             | Min      | Average  | σ        |            |          |
| Textured           | 7.67E+03                        | 5.96E+03 | 6.80E+03 | 7.73E+02 |            |          |
| Smooth             | 3.84E+03                        | 2.68E+03 | 3.20E+03 | 4.44E+02 |            |          |

#### Surface Resistivity Per EN 50014:1997.

|                         |                                |          |          |          |            |          |
|-------------------------|--------------------------------|----------|----------|----------|------------|----------|
|                         | 50% RH, 73 degrees F, 48 hours |          |          |          | @ 10 volts |          |
| Resistivity in Ohms/sq. |                                |          |          |          |            |          |
|                         | 1                              | 2        | 3        | 4        | 5          | 6        |
| Textured                | 6.37E+04                       | 5.96E+04 | 6.03E+04 | 7.15E+04 | 7.67E+04   | 7.59E+04 |
| Smooth                  | 2.94E+04                       | 3.39E+04 | 3.84E+04 | 3.48E+04 | 2.68E+04   | 2.85E+04 |
|                         |                                |          |          |          |            |          |
|                         | Max                            | Min      | Average  | σ        |            |          |
| Textured                | 7.67E+04                       | 5.96E+04 | 6.80E+04 | 7.73E+03 |            |          |
| Smooth                  | 3.84E+04                       | 2.68E+04 | 3.20E+04 | 4.44E+03 |            |          |

The average of these tests shows a resistance of 3-6 kOhms which is well below the 1 G Ohm level needed to pass the specifications.



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The data and conclusions of this report are based upon the information and samples supplied to Fowler Associates for the tests described herein. Product users should make his or her own tests to determine the suitability of the information and conclusions herein stated or implied for their intended use, and shall assume all risk and liability in connection therein.

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