

IMO A.653(16) TESTING  
FOR  
KINON SURFACE DESIGN, INC.  
ON  
KINON SOLID CAST RESIN WITH METAL PIGMENT  
VTEC #100-3984-2  
TESTED: JANUARY 20, 2012  
REVISION 1.0: JANUARY 10, 2014



# VTEC Laboratories Inc.

January 10, 2014

Client: Kinon Surface Design, Inc.  
1217 Central Ave, PO Box 776  
Hillside, NJ 07205

Attention: Angela Fazioli

**Scope:** This report contains the reference to the test method, preparation and conditioning of sample, observation of material, test and post test observation data test results.

**Test Method:** This test was conducted in accordance with IMO A.653(16) specification.

## **Passing Requirements:**

Bulkhead, Wall and Ceiling Linings				Floor Coverings			
CFE (kW/m <sup>2</sup> )	Q <sub>sb</sub> (MJ/m <sup>2</sup> )	Q <sub>t</sub> (MJ)	q <sub>p</sub> (kW)	CFE (kW/m <sup>2</sup> )	Q <sub>sb</sub> (MJ/m <sup>2</sup> )	Q <sub>t</sub> (MJ)	q <sub>p</sub> (kW)
≥20.0	≥1.5	≤0.7	≤4.0	≥7.0	≥0.25	≤1.5	≤10.0

*This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.*

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## IMO A.653(16) FLAME SPREAD DATA

**PRODUCT:** Kinon Solid Cast Resin with Metal Pigment

**SOURCE:** Kinon Surface Design, Inc.

**DIMENSIONS:** 800 x 155 mm

**SPECIMEN**

**THICKNESS:** 12.75 mm

**OBSERVATIONS:** No unusual observations.

**VTEC #** 100-3984-2

**COLOR:** Black

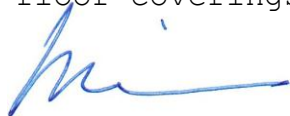
**AL FOIL ?** Yes

**DATE:** 1/20/2012

TIME TO:	150 mm	200 mm	250 mm	300 mm	350 mm	400 mm
Sample #	sec.	sec.	sec.	sec.	sec.	sec.
1	86	106	-	-	-	-
2	70	88	109	-	-	-
3	65	77	100	116	-	-

	SAMPLE 1	SAMPLE 2	SAMPLE 3	AVERAGE
Nonimpinging Pilot flame used?	YES	YES	YES	
Test Duration (min.)	17.67	11.78	12.05	13.83
Heat of Ignition (MJ/m <sup>2</sup> )	4.17	3.39	3.15	3.57
Heat of Sustained Burning at (MJ/m <sup>2</sup> ):				
150 mm	4.17	3.39	3.15	3.57
200 mm	4.93	4.09	3.58	4.20
250 mm	-	4.57	4.19	4.38
300 mm	-	-	-	-
350 mm	-	-	-	-
400 mm	-	-	-	-
Sample Average:	4.55	4.02	3.64	4.07
Time of Extinguishment (min.)	14.67	8.78	9.05	10.83
Distance burned (mm)	235	290	320	282
<b>Critical Flux at Extinguishment (kW/m<sup>2</sup>), CFE</b>	43.30	38.28	34.67	<b>38.75</b>
<b>Average Heat for Sustained Burning (MJ/m<sup>2</sup>), Q<sub>sb</sub></b>	4.55	4.02	3.64	<b>4.07</b>
<b>Total Heat Release (MJ), Q<sub>t</sub></b>	0.16	0.20	0.21	<b>0.19</b>
<b>Peak Heat Release (kW), q<sub>p</sub></b>	1.28	1.58	1.44	<b>1.43</b>

**CONCLUSIONS:** The specimens provided met all requirements per IMO Resolution A.653(16) for bulkhead, wall and ceiling linings and floor coverings.



Neil Schultz  
Executive Director



Amirudin Rahim  
Technical Director

**REV. 1.0:** Changed company and product names.