



REPORT NUMBER: 150127003SHF-BP-4
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EVALUATION CENTER

Intertek Testing Services Ltd., Shanghai
Plant 7, No. 6958 Daye Road, Fengxian District, Shanghai, China

RENDERED TO

GT Industrial Products Company
600 N 85th St, Suite C101, Seattle, WA.

PRODUCT EVALUATED

SilverMax 30 Roofing Underlayment

EVALUATION PROPERTY

Fire response

TEST REPORT

Report of Testing SilverMax 30 Roofing Underlayment for compliance with the applicable requirements of the following criteria: *ASTM E108-11 Standard Test Methods for Fire Tests of Roof Coverings, and ICC-ES AC207, Acceptance Criteria for Polypropylene Roof Underlayments, Approved February 2012.*

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2 Introduction

Intertek has conducted testing for GT Industrial Products Company to determine the fire response characteristics of SilverMax 30 Roofing Underlayment for a class 'A' application. Testing was conducted in accordance with ICC-ES AC207, Acceptance Criteria for Polypropylene Roof Underlayments, Approved February 2012, following the standard methods of ASTM E108 Standard Test Methods for Fire Tests of Roof Coverings. This evaluation began on April 20, 2015 and was completed on May 13, 2015.

3 Test Samples

3.1. SAMPLE SELECTION

Samples were randomly selected on January 28, 2015 by Intertek representative Daniel Zhang, at the Fotai Vietnam Enterprise Corp manufacturing facility, located at 73/1, Nguyen Thai Binh Street, Phu Hoa Ward, Thu Dau Mot City, Binh Duong Province, Vietnam. Samples were received at the Evaluation Center on February 6, 2015.

The subject test specimen was a traceable sample selected from the manufacturer's facility. Intertek selected the specimen and has verified the composition, manufacturing techniques and quality assurance procedures.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

The plywood decks were constructed by Intertek according to the specifications of test criteria in ASTM E108-11 Standard Test Methods for Fire Tests of Roof Coverings.

Item name	Specification
Roof Covering	GAF Royal Sovereign® 3 tab shingles were fastened to the deck using four 1 ¼" galvanized roofing nails per shingle. A starter course was cut from the upper portion of a shingle and placed along the leading edge. Each course was overlapped to leave 5 ½" exposure and fastened at 6 ½" above the leading edge of the shingle.
Underlayment	SilverMax 30 Roofing Underlayment A single layer of the sampled Roof Underlayment was fastened to the substrate using No.0015 flat head staples at 18" intervals and incorporated a 2" overlap.
Deck	3/8" AC exterior grade plywood, moisture content not greater than 8%
Lumber	Nominal 2" x 4" lumbers, moisture content between 8-12%

Two Class A Intermittent Flame and four Class A Burning Brand decks were prepared per the Standard ICC-ES AC207, Acceptance Criteria for Polypropylene Roof Underlayments.

No.	Sample ID	Deck Type
1	S150127003SHF-007	Burning Brand Class A
2	S150127003SHF-008	Burning Brand Class A
3	S150127003SHF-009	Burning Brand Class A
4	S150127003SHF-010	Burning Brand Class A
5	S150127003SHF-011	Intermittent Flame Class A
6	S150127003SHF-012	Intermittent Flame Class A

4 Testing and Evaluation Methods

4.1. CONDITIONING

The test samples were conditioned at a temperature of between 16°C and 32°C for 24 hours prior to testing.

4.2. TEST PROCEDURE

The tests were conducted in accordance with section 3.9 of the fire response criteria of ICC-ES AC207, Acceptance Criteria for Polypropylene Roof Underlayments, Approved February 2012, by following method ASTM E108-11 "Standard Test Methods for Fire Tests of Roof Coverings", per section 8 for intermittent flame and section 10 for burning brand.

All tests were conducted at 5:12 slope. The top surface was exposed to the flame and the test brand.

5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

5.1.1. Intermittent Flame Exposure Test

Intermittent Flame Exposure Test Results		
Test Result	ASTM E108-11, Section 14	Pass/Fail
No sustained flaming on the underside of the test deck, production of flaming or glowing brands displacement of portions of the test sample, nor exposure or falling away of portions of the roof deck.	<p>At no time during or after the intermittent flame test shall:</p> <ol style="list-style-type: none"> 1. Any portion of the roof covering material be blown or fall off the test deck in the form of glowing brands that continue to glow after reaching the floor; 2. The roof deck be exposed, or 3. Portions of the roof deck fall away in the form of particles that continue to glow after continue to glow after reaching the floor; 4. There be sustained flaming of the underside of the deck. 	Pass

5.1.2. Burning Brand Test

Burning-brand Test Results		
Test Result	ASTM E108-11, Section 14	Pass/Fail
No sustained flaming on the underside of the test deck, production of flaming or glowing brands displacement of portions of the test sample, nor exposure or falling away of portions of the roof deck.	<p>At no time during or after the burning brand test shall:</p> <ol style="list-style-type: none"> 1. Any portion of the roof covering material be blown or fall off the test deck in the form of glowing brands that continue to glow after reaching the floor; 2. The roof deck be exposed, or 3. Portions of the roof deck fall away in the form of particles that continue to glow after continue to glow after reaching the floor; 4. There be sustained flaming of the underside of the deck. 	Pass

6 Conclusion

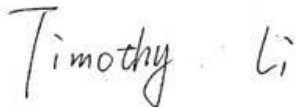
The SilverMax 30 Roofing Underlayment and roof assembly identified in this report has been tested in accordance with the fire response criteria of ICC-ES AC207, Acceptance Criteria for Polypropylene Roof Underlayments, Approved February 2012, by following method ASTM E108-11. The results of testing are summarized in the table below:

No.	Sample ID	Deck Type	Slope	Rating
1	S150127003SHF-007	Burning Brand Class A	5:12	Class 'A'
2	S150127003SHF-008	Burning Brand Class A	5:12	Class 'A'
3	S150127003SHF-009	Burning Brand Class A	5:12	Class 'A'
4	S150127003SHF-010	Burning Brand Class A	5:12	Class 'A'
5	S150127003SHF-011	Intermittent Flame Class A	5:12	Class 'A'
6	S150127003SHF-012	Intermittent Flame Class A	5:12	Class 'A'

The SilverMax 30 Roofing Underlayment applied as specified in this report meets the requirements for "Class A" application in accordance with ASTM E108-11 Standard Test Methods for Fire Tests of Roof Coverings, Section 8 and Section 10 for a "Class A" rating at a 5:12 slope. The test requirements were followed as set forth in ICC-ES AC207, Acceptance Criteria for Polypropylene Roof Underlayments, Approved February 2012 Section 4.8 referencing the Intermittent Flame and Burning Brand tests.

The conclusions of this test report may be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

INTERTEK

Reported by: 

Timothy Li
Testing Engineer, Building Products

Reviewed by: 

Sun Sun
Assistant Manager, Building Products

7 Appendix A: Photographs



Fig 1 – Intermittent Flame Exposure Top Surface (Before Testing)



Fig 2 – Intermittent Flame Exposure Top Surface (After Testing)



Fig 3 – Burning Brand Top Surface (Before Testing)



Fig 3 – Burning Brand Top Surface (After Testing)

8 Appendix B: Test data



Test: Burning-brand
 Test Date: 2015.5.11
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-007
 Standards: ASTM E108-11
 Procedure: Class A Burning brand test, first brand
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li

Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Deck Slope Gauge	SH 1150	2015-06-13
Anemometer	SH 1092	2016-01-28
Stop Watch	SH 1042	2015-08-11
Caliper for brand dimension check	SH 1166	2015-07-23
Oven for brand conditioning	SH 1051	2015-11-13
Balance for weighing brands	SH 1020	2015-06-30

Deck
 Construction: 3/8-inch-thick Plywood deck
 Deck Slope: 5:12

Air Velocity
 Calibration:

Location 1:	5.5 m/s	(76 mm from edge)
Location 2:	5.1 m/s	(measured at centre)
Location 3:	5.3 m/s	(76 mm from edge)
Mean:	5.3 m/s	Requirement: 5.3 ± 0.2 m/s

Ambient Air
 Temperature: Mean: 20.0 °C **Requirement:** 16-32 °C

Brand
 Description: Kiln-dried Douglas fir lumber free from knots and pitch pockets
 Brand: **Nominal**
 Dimensions:

Length:	305 mm	Requirements:	305 mm
Width:	305 mm		305 mm
Depth:	57 mm		57 mm

Brand
 Conditioning: 24 hours at a temperature between 40 and 49°C and ambient humidity
 Brand Mean
 Weight: Mean: 2089.7 g **Requirement:** 2000 ± 150 g

Note: All measurements represent an average over a time interval of 30 seconds



Test: Burning-brand
 Test Date: 2015.5.11
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-007
 Standards: ASTM E108-11
 Procedure: Class A Burning brand test, first brand
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li
 Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Thermocouple for firing of brands	SH 1099-1	2016-03-31
Ambient Temperature gauge	SH 1094	2016-03-11
Stop Watch	SH 1042	2015-06-13

Brand Flame
 Temperature: Mean: 878 °C Requirement: 888 ± 28 °C

Time	Observations (Fall off of glowing particles, underside sustained flaming, exposure of test deck)
0:00	Brand placed on deck.
3:28	Surface ignition behind brand.
4:15	Smoke from horizontal joint, underside.
5:12	Brand 1/4 consumed.
8:48	Brand 1/2 consumed.
10:04	Discoloration of horizontal joint, underside.
12:04	Brand 3/4 consumed.
33:35	Glow out, top side. Brand fully consumed.
90:00	Test stop.

Acceptance Level: Class "A". No flaming underside.



Test: Burning-brand
 Test Date: 2015.5.11
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-008
 Standards: ASTM E108-11
 Procedure: Class A Burning brand test, second brand
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li
 Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Deck Slope Gauge	SH 1150	2015-06-13
Anemometer	SH 1092	2016-01-28
Stop Watch	SH 1042	2015-08-11
Caliper for brand dimension check	SH 1166	2015-07-23
Oven for brand conditioning	SH 1051	2015-11-13
Balance for weighing brands	SH 1020	2015-06-30

Deck
 Construction: 3/8-inch-thick Plywood deck
 Deck Slope: 5:12

Air Velocity
 Calibration: Location 1: 5.5 m/s (76 mm from edge)
 Location 2: 5.1 m/s (measured at centre)
 Location 3: 5.3 m/s (76 mm from edge)
 Mean: 5.3 m/s Requirement: 5.3 ± 0.2 m/s

Ambient Air
 Temperature: Mean: 20.0 °C Requirement: 16-32 °C

Brand
 Description: Kiln-dried Douglas fir lumber free from knots and pitch pockets
 Brand: Nominal
 Dimensions: Length: 305 mm Requirements: 305 mm
 Width: 305 mm
 Depth: 57 mm

Brand
 Conditioning: 24 hours at a temperature between 40 and 49°C and ambient humidity
 Brand Mean
 Weight: Mean: 2032.1 g Requirement: 2000 ± 150 g

Note: All measurements represent an average over a time interval of 30 seconds



Test: Burning-brand
 Test Date: 2015.5.11
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-008
 Standards: ASTM E108-11
 Procedure: Class A Burning brand test, second brand
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li
 Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Thermocouple for firing of brands	SH 1099-1	2016-03-31
Ambient Temperature gauge	SH 1094	2016-03-11
Stop Watch	SH 1042	2015-06-13

Brand Flame
 Temperature: Mean: 878 °C Requirement: 888 ± 28 °C

Time	Observations (Fall off of glowing particles, underside sustained flaming, exposure of test deck)
0:00	Brand placed on deck.
3:50	Surface ignition behind brand.
5:06	Smoke from horizontal joint, underside.
8:51	Brand 1/4 consumed.
10:29	Discoloration of horizontal joint, underside.
11:08	Brand 1/2 consumed.
14:20	Brand 3/4 consumed.
20:58	Glow out, top side. Brand fully consumed.
90:00	Test stop.

Acceptance Level: Class "A". No flaming underside.



Test: Burning-brand
 Test Date: 2015.5.12
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-009
 Standards: ASTM E108-11
 Procedure: Class A Burning brand test, third brand
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li
 Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Deck Slope Gauge	SH 1150	2015-06-13
Anemometer	SH 1092	2016-01-28
Stop Watch	SH 1042	2015-08-11
Caliper for brand dimension check	SH 1166	2015-07-23
Oven for brand conditioning	SH 1051	2015-11-13
Balance for weighing brands	SH 1020	2015-06-30

Deck
 Construction: 3/8-inch-thick Plywood deck
 Deck Slope: 5:12

Air Velocity
 Calibration: Location 1: 5.4 m/s (76 mm from edge)
 Location 2: 5.2 m/s (measured at centre)
 Location 3: 5.3 m/s (76 mm from edge)
 Mean: 5.3 m/s Requirement: 5.3 ± 0.2 m/s

Ambient Air
 Temperature: Mean: 18.5 °C Requirement: 16-32 °C

Brand
 Description: Kiln-dried Douglas fir lumber free from knots and pitch pockets
 Brand: Nominal
 Dimensions: Length: 305 mm Requirements: 305 mm
 Width: 305 mm
 Depth: 57 mm

Brand
 Conditioning: 24 hours at a temperature between 40 and 49°C and ambient humidity
 Brand Mean
 Weight: Mean: 2015.0 g Requirement: 2000 ± 150 g

Note: All measurements represent an average over a time interval of 30 seconds



Test: Burning-brand
 Test Date: 2015.5.12
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-009
 Standards: ASTM E108-11
 Procedure: Class A Burning brand test, third brand
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li
 Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Thermocouple for firing of brands	SH 1099-1	2016-03-31
Ambient Temperature gauge	SH 1094	2016-03-11
Stop Watch	SH 1042	2015-06-13

Brand Flame
 Temperature: Mean: 895 °C Requirement: 888 ± 28 °C

Note: All measurements represent an average over a time interval of 30 seconds

Time (min:sec)	Observations (Fall off of glowing particles, underside sustained flaming, exposure of test deck)
0:00	Brand placed on deck.
2:44	Surface ignition behind brand.
4:44	Black smoke issues from the asphalt shingle.
8:40	Smoke from horizontal joint, underside.
9:45	Discoloring of horizontal joint, underside.
12:09	Brand 1/2 consumed.
15:22	Brand 3/4 consumed.
17:52	Glow out, top side. Brand fully consumed.
21:54	Three cracks near horizontal joint, underside.
90:00	Test stop. Deck cool to touch. No smoke, glow or flame.

Acceptance Level: Class "A". No flaming underside.



Test: Burning-brand
 Test Date: 2015.5.12
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-010
 Standards: ASTM E108-11
 Procedure: Class A Burning brand test, fourth brand
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li

Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Deck Slope Gauge	SH 1150	2015-06-13
Anemometer	SH 1092	2016-01-28
Stop Watch	SH 1042	2015-08-11
Caliper for brand dimension check	SH 1166	2015-07-23
Oven for brand conditioning	SH 1051	2015-11-13
Balance for weighing brands	SH 1020	2015-06-30

Deck
 Construction: 3/8-inch-thick Plywood deck
 Deck Slope: 5:12

Air Velocity
 Calibration: Location 1: 5.4 m/s (76 mm from edge)
 Location 2: 5.2 m/s (measured at centre)
 Location 3: 5.3 m/s (76 mm from edge)
 Mean: 5.3 m/s Requirement: 5.3 ± 0.2 m/s

Ambient Air
 Temperature: Mean: 18.5 °C Requirement: 16-32 °C

Brand
 Description: Kiln-dried Douglas fir lumber free from knots and pitch pockets
 Brand: Nominal
 Dimensions: Length: 305 mm Requirements: 305 mm
 Width: 305 mm
 Depth: 57 mm

Brand
 Conditioning: 24 hours at a temperature between 40 and 49°C and ambient humidity
 Brand Mean
 Weight: Mean: 2044.6 g Requirement: 2000 ± 150 g

Note: All measurements represent an average over a time interval of 30 seconds



Test: Burning-brand
 Test Date: 2015.5.12
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-010
 Standards: ASTM E108-11
 Procedure: Class A Burning brand test, fourth brand
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li
 Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Thermocouple for firing of brands	SH 1099-1	2016-03-31
Ambient Temperature gauge	SH 1094	2016-03-11
Stop Watch	SH 1042	2015-06-13

Brand Flame
 Temperature: Mean: 895 °C Requirement: 888 ± 28 °C

Note: All measurements represent an average over a time interval of 30 seconds

Time (min:sec)	Observations (Fall off of glowing particles, underside sustained flaming, exposure of test deck)
0:00	Brand placed on deck.
1:14	Surface ignition behind brand.
2:27	Black smoke issues from the asphalt shingle.
4:00	Smoke from horizontal joint, underside.
8:04	Brand 1/4 consumed.
10:14	Discoloring of horizontal joint, underside.
13:43	Glowing of horizontal joint, underside.
14:02	Glow out, top side. Brand fully consumed.
24:15	Fall off of ash from underside.
90:00	Test stop. Deck cool to touch. No smoke, glow or flame.

Acceptance Level: Class "A". No flaming underside.



Test: Intermittent-flame-exposure
 Test Date: 2015.5.13
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-011
 Standards: ASTM E108-11
 Procedure: Class A - 15 cycles intermittent flame exposure, first test
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li

Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Anemometer	SH 1092	2016-01-28
Chromel-alumel thermocouple	SH 1099-1	2016-03-31
Stop Watch	SH 1042	2015-08-11
Ambient Temperature gauge	SH 1094	2016-03-11
Deck Slope Gauge	SH 1150	2015-06-13
Gas Flow Meter	n/a	n/a

Deck

Construction: 3/8-inch-thick plywood deck

Deck Slope: 5:12

Air Velocity

Calibration: Location 1: 5.5 m/s (76 mm from edge)
 Location 2: 5.2 m/s (measured at centre)
 Location 3: 5.3 m/s (76 mm from edge)
 Mean: 5.3 m/s Requirement: 5.3 ± 0.2 m/s

Temperature

Calibration: Mean: 756.2 °C Requirement: 760 ± 28 °C

Ambient Air

Temperature: Mean: 22 °C Requirement: 16-32 °C

Note: Air velocity measurements represent an average over a time interval of 60 seconds

Flame temperature measurements represent an average over a time interval of 10 seconds

Cycle	Observations (Fall off of glowing particles, underside sustained flaming, exposure of test deck)
1	No fall off of glowing particles, underside sustained flaming, exposure of test deck
2	No fall off of glowing particles, underside sustained flaming, exposure of test deck
3	No fall off of glowing particles, underside sustained flaming, exposure of test deck
4	No fall off of glowing particles, underside sustained flaming, exposure of test deck
5	No fall off of glowing particles, underside sustained flaming, exposure of test deck
6	No fall off of glowing particles, underside sustained flaming, exposure of test deck
7	No fall off of glowing particles, underside sustained flaming, exposure of test deck
8	No fall off of glowing particles, underside sustained flaming, exposure of test deck
9	No fall off of glowing particles, underside sustained flaming, exposure of test deck
10	No fall off of glowing particles, underside sustained flaming, exposure of test deck
11	No fall off of glowing particles, underside sustained flaming, exposure of test deck
12	No fall off of glowing particles, underside sustained flaming, exposure of test deck
13	No fall off of glowing particles, underside sustained flaming, exposure of test deck
14	No fall off of glowing particles, underside sustained flaming, exposure of test deck
15	No fall off of glowing particles, underside sustained flaming, exposure of test deck



Test: Intermittent-flame-exposure
 Test Date: 2015.5.13
 Job No: 150127003SHF-BP
 Client: GT Industrial Products Company
 Sample: SilverMax 30 Roofing Underlayment
 Sample ID: S150127003SHF-012
 Standards: ASTM E108-11
 Procedure: Class A - 15 cycles intermittent flame exposure, second test
 Conditioning: 24 hours at a temperature between 16 and 32°C
 Equipment:

Reviewer: Harrison Li

Eng/Tech: Timothy Li

Item	ID	Cal Due Date
Test Apparatus	SH 1099	n/a
Anemometer	SH 1150	2016-01-28
Chromel-alumel thermocouple	SH 1092	2016-03-31
Stop Watch	SH 1042	2015-08-11
Ambient Temperature gauge	SH 1094	2016-03-11
Deck Slope Gauge	SH 1150	2015-06-13
Balance for weighing brands	n/a	n/a

Deck

Construction: 3/8-inch-thick plywood deck

Deck Slope: 5:12

Air Velocity

Calibration: Location 1: 5.5 m/s (76 mm from edge)
 Location 2: 5.2 m/s (measured at centre)
 Location 3: 5.3 m/s (76 mm from edge)
 Mean: 5.3 m/s Requirement: 5.3 ± 0.2 m/s

Temperature

Calibration: Mean: 756.2 °C Requirement: 760 ± 28 °C

Ambient Air

Temperature: Mean: 22 °C Requirement: 16-32 °C

Note: Air velocity measurements represent an average over a time interval of 60 seconds

Flame temperature measurements represent an average over a time interval of 10 seconds

Cycle	Observations (Fall off of glowing particles, underside sustained flaming, exposure of test deck)
1	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
2	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
3	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
4	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
5	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
6	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
7	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
8	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
9	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
10	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
11	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
12	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
13	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
14	No Fall off of glowing particles, underside sustained flaming, exposure of test deck
15	No Fall off of glowing particles, underside sustained flaming, exposure of test deck

9 Revision Page

Revision No.	Date	Changes	Author	Reviewer
0	May 29, 2015	First issue	Timothy Li	Sun Sun

END OF DOCUMENT
