



**Tech Project**      No. 06TS200      **Date :** December 21, 2006      **Page 1 of 6**

**Applicant:**      LiXian Qingshan Waterproof Material Co.,Ltd.

**Factory:**      LiXian Qingshan Waterproof Material Co.,Ltd.

**Product:**      Asphalt-Saturated Organic Felt (Type I)

**Model No.:**      ---

**Test Protocol:** Standard Specification for Asphalt-Saturated Organic Felt  
 (ASTM D4869)

<b>PASS</b>	<b>PENDING</b>	<b>FAIL</b>
X	--	--

**TEST RESULTS SUMMARY**

1. Sample of piece of Asphalt-Saturated Organic Felt from LiXian Qingshan Waterproof Material Co.,Ltd. was subjected to the test program in the following sections of this report. The product was classified as Type I.
2. The overall performance was OK.

**Recommendations For Improvement:**

1. N/A.

**Remarks:**

1. In the process of manufacture, a single thickness of organic dry felt shall be uniformly saturated with an asphaltic saturant. [FACTORY]



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TECHSONIC TEST REPORT – Picture Page

Sample Picture (As receive)



Figure 1 – Overall view, front

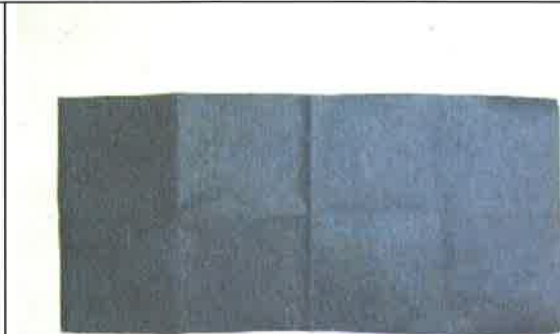


Figure 2 – Overall view, back



Figure 3 – Front



Figure 4 – Back



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## PHYSICAL CHARACTERISTICS

Sample weight: 241 g

Sample size: 915 mm (L) x 435 mm (W)

Thickness: 0.6 mm

Net mass: 605 g/m<sup>2</sup>



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**TECHSONIC TEST REPORT -  
Standard Specification for Asphalt-Saturated Organic Felt (ASTM D4869)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
<b>PHYSICAL CHARACTERISTICS</b>					
Length (mm)	Measurement	1	Shall meet label claims	See page 3	PENDING
Width (mm)	Measurement	1	Shall meet label claims	See page 3	PENDING
Thickness (mm)	Measurement	1	Shall meet label claims	See page 3	PENDING
Weight (g)	Measurement	1	Shall meet label claims	See page 3	PENDING
Net mass (g/m <sup>2</sup> )	ASTM D4689	1	For Type I, min 390 g/m <sup>2</sup>	See page 3	PASS
Parts Inventory	TM-HL-0001	1	Shall meet label claims		PENDING
Material Type	TM-HL-0001	1	As Approval Sample	Type I	PASS
<b>FEATURES</b>					
Features claimed	Visual	1	Shall meet labeled claims		PENDING
Workmanship	ASTM D4689	1	Shall be thoroughly and uniformly saturated, and shall show no unsaturated spots at any point		PASS
Appearance	ASTM D4689	1	Shall be free of visible external defects, such as holes, ragged or untrue edges, breaks, cracks, tears, protuberances, and indentations		PASS
Fit Properties	Actual Use	1	Should fit various components for which item is intended		PASS



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**TECHSONIC TEST REPORT -**  
**Standard Specification for Asphalt-Saturated Organic Felt (ASTM D4869)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Materials	ASTM D4689	1	The surface shall be uniform and relatively smooth; upon splitting or tearing on the bias, the felt shall appear free of lumps or particles of foreign substances		PASS
<b>PERFORMANCE</b>					
Effects Of Extreme Temperature	ASTM D4689	1	Shall not crack nor be so sticky as to cause tearing or other damage upon being unrolled at temperatures between 0°C and 60°C		PASS
Effects Of Extreme Humidity	ASTM D4689	3	From low humidity (20% RH) to high humidity (95% RH)	No visible dimensional change	PASS
Tearing strength	ASTM D1922	1	Shall be > 0.44 lbf	Breaking load, Warp: 1.1 lbf Weft: 1.1 lbf	PASS
Water vapour transmission	ASTM E96	1	Shall be > 287 ng/Pa/s/m <sup>2</sup>	465 ng/Pa/s/m <sup>2</sup>	PASS
Loss on heating	ASTM D146	1	105°C for 5 hour, max 6 %	1.5 %	PASS
Pliability	ASTM D146	1	Shall not crack when bent 90° at a uniform speed over a rounded corner of radius in table	Wrap: No visible surface rupture Weft: No visible surface rupture	PASS



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**TECHSONIC TEST REPORT -  
 Standard Specification for Asphalt-Saturated Organic Felt (ASTM D4869)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Liquid water transmission	ASTM D4689	1	No sign of any liquid water wetness on either specimen underside or top of plywood support or visible deterioration of the specimen	No wetness on underside and deterioration by action of water	PASS

\*\*\*\*\* End of Report \*\*\*\*\*

**Laboratory Report S6340.04.07**

**Physical Properties Testing  
of  
Type-I & Type-II Felts  
*in accordance with*  
ASTMD-226**

**Prepared for:**

**Lixian qingshan waterproof material Co.,Ltd  
Dongwei,Lixian,Hebei Provience,China  
071400**

**Date of Issuance:  
April 13, 2007**

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**Client Information:** Lixian qingshan waterproof material Co.,Ltd  
Dongwei,Lixian,Hebei province,China  
071400  
c/o: You Wenjun

**Client Reference:** Type-I and Type-2 Felt Membrane Testing

**ERD Reference:** Project #2007.S6340LAB

**Samples:** Client supplied four samples for testing. Two samples, one 15# and one 30# labeled ASTM D4869; Two samples, one 15# and one 30# labeled ASTM D226.

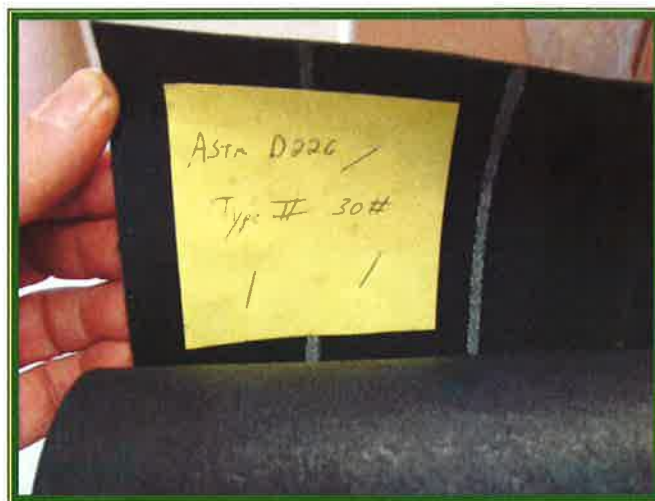


Photo 1: View of Sample Labeling Provided with Samples

**Sample Delivery:** The named client shipped samples of the above materials to TRINITY | ERD's Seattle laboratory for testing.

**Test Date(s):** March 2007

**ERD Technicians:** Charles Phillips, Tim Bush, Brendan Smith, Paul Thibault

**Properties:**

Tear Strength	ASTM D1922
Water Vapor Transmission	ASTM E96
Liquid Water Transmission	ASTM D4869, Section 8.3
Low and High Temp Unrolling	ASTM D4869, Section 6.2
Pliability	ASTM D146
Loss on Heating	ASTM D146
Roll Width	ASTM D146
Area Per Roll	ASTM D146
Net mass of Saturated Felt	ASTM D146
Mass of saturant	ASTM D146
Mass of felt	ASTM D146
Moisture content	ASTM D146

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**I. Low/High Temperature Unrolling – ASTM D4869**

**I.1 Specimen Preparation:**

**I.1.1** A set of five specimens per condition, measuring 12 x 24 inches were cut from supplied samples and wrapped around a 3-in diameter mandrel. Specimens were conditioned at 140°F and 50°F for minimum of 24 hours.

**I.2 Procedure:**

**I.2.1** The specimen is removed for conditioning, and immediately unrolled from the mandrel. The specimen is examined for cracks, tears, and stickiness.

**I.3 Results:**

**I.3.1** See Tables 1a & b, below.

<b>Table 1a: Low/High Temperature Unrolling—D4869 Felts</b>								
Type-I	Test No.	Result	D4869 Criteria	Pass/Fail				
50°F	1	Pass	No cracks, not sticky	Pass				
	2	Pass						
	3	Pass						
	4	Pass						
	5	Pass						
140°F	1	Pass		No cracks, not sticky	Pass			
	2	Pass						
	3	Pass						
	4	Pass						
	5	Pass						
<b>Type-II</b>	--	--				--		
50°F	1	Pass			No cracks, not sticky	Pass		
	2	Pass						
	3	Pass						
	4	Pass						
	5	Pass						
140°F	1	Pass				No cracks, not sticky	Pass	
	2	Pass						
	3	Pass						
	4	Pass						
	5	Pass						
<b>Table 1b: Low/High Temperature Unrolling—D226 Felts</b>								
Type-I	Test No.	Result					D4869 Criteria	Pass/Fail
50°F	1	Pass					No cracks, not sticky	Pass
	2	Pass						
	3	Pass						
	4	Pass						
	5	Pass						
140°F	1	Pass	No cracks, not sticky					Pass
	2	Pass						
	3	Pass						
	4	Pass						
	5	Pass						
<b>Type-II</b>	--	--						--
50°F	1	Pass		No cracks, not sticky				Pass
	2	Pass						
	3	Pass						
	4	Pass						
	5	Pass						
140°F	1	Pass			No cracks, not sticky			Pass
	2	Pass						
	3	Pass						
	4	Pass						
	5	Pass						

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**2. Pliability – ASTM D146**

2.1 Specimen Preparation:

2.1.1 Specimens are cut to 1-in x 8-in strips and conditioned at a temperature of 75°F for a 24hr period.

2.2 Procedure:

2.2.1 Each of the specimens is bent over a ½-in mandrel through 90° at a uniform speed. The sample is then examined for signs of cracking.

2.3 Results:

2.3.1 See Tables 2a & 2b, below.

Table 2a: Pliability—D4869 Felts							
Sample	Test No.	Result	D4869 Criteria	Pass/Fail			
Type-I Machine-Direction	1	No Cracks	No cracks when bent 90° over ½-in radius mandrel	Pass			
	2	No Cracks					
	3	No Cracks					
	4	No Cracks					
	5	No Cracks					
Type-I Cross Machine- Direction	1	No Cracks		No cracks when bent 90° over ½-in radius mandrel	Pass		
	2	No Cracks					
	3	No Cracks					
	4	No Cracks					
	5	No Cracks					
Type-II Machine-Direction	1	No Cracks			No cracks when bent 90° over ½-in radius mandrel	Pass	
	2	No Cracks					
	3	No Cracks					
	4	No Cracks					
	5	No Cracks					
Type-II Cross Machine- Direction	1	No Cracks				No cracks when bent 90° over ½-in radius mandrel	Pass
	2	No Cracks					
	3	No Cracks					
	4	No Cracks					
	5	No Cracks					

Table 2b: Pliability—D226 Felts							
Sample	Test No.	Result	D4869 Criteria	Pass/Fail			
Type-I Machine-Direction	1	No Cracks	No cracks when bent 90° over ½-in radius mandrel	Pass			
	2	No Cracks					
	3	No Cracks					
	4	No Cracks					
	5	No Cracks					
Type-I Cross Machine- Direction	1	No Cracks		No cracks when bent 90° over ½-in radius mandrel	Pass		
	2	No Cracks					
	3	No Cracks					
	4	No Cracks					
	5	No Cracks					
Type-II Machine-Direction	1	No Cracks			No cracks when bent 90° over ½-in radius mandrel	Pass	
	2	No Cracks					
	3	No Cracks					
	4	No Cracks					
	5	No Cracks					
Type-II Cross Machine- Direction	1	No Cracks				No cracks when bent 90° over ½-in radius mandrel	Pass
	2	No Cracks					
	3	No Cracks					
	4	No Cracks					
	5	No Cracks					

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**3. Loss on Heating: ASTM D146**

3.1 Specimen Preparation:

3.1.1 Two 6-in x 12-in specimens are cut from each membrane to be tested.

3.2 Procedure:

3.2.1 Specimens are weighed to the nearest 0.1g. The specimens are then suspended in an oven at a temperature of 221°F for five hours and then weighed again. The percent change in weight due to heating is then recorded.

3.3 Results:

3.3.1 See Table 3 below:

Table 3: Loss on Heating						
Membrane	Specimen	Initial Weight (g)	Final Weight (g)	% Change	D4869 Max Change (%)	Result
<b>ASTM D4869</b>	--				≤4	--
Type-I	1	22.6	22.2	1.8%		Pass
	2	21.5	21.1	1.9%		Pass
Type-II	1	32.1	31.5	1.9%		Pass
	2	30.3	29.8	1.7%		Pass
<b>ASTM D226</b>	--					--
Type-I	1	21.9	21.5	1.8%		Pass
	2	21.9	21.5	1.8%		Pass
Type-II	1	56.8	56.1	1.2%		Pass
	2	55.3	54.4	1.6%		Pass

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**4. Tear Strength: ASTM D1922**

**4.1 Specimen Preparation:**

4.1.1 A total of ten samples for both Machine Direction (MD) and Cross Machine Direction (XMD) for each of the materials are prepared. Samples are cut into 2.5-in x 3-in squares. A mark is made 1.5-in along the 3-in side and 0.8-in parallel to the 2.5-in side. Using this point as a center, a 1.7-in radius arc is cut from the sample with the endpoints on the 2.5-in sides. A slit is then cut from the center point of the arc parallel to the 2.5-in away from the arc, creating two tabs.

**4.2 Procedure:**

4.2.1 The sample is secured into the Elmendorf machine by attaching each of the tabs into the clamps. The pendulum is then released and the tear resistance value is recorded.

**4.3 Results:**

4.3.1 Results are outlined in Tables 4a – 4b below:

Table 4a: Tear Resistance – D4869 Samples					
Sample Designation	Sample	Tear Resistance (lbf)		D4869 Criteria	Result
		MD	XMD		
Type-I	1	0.9	0.9	≥.44	Pass
	2	0.8	0.9		
	3	1.0	1.0		
	4	1.1	0.8		
	5	0.8	0.9		
	6	0.9	1.1		
	7	1.1	1.1		
	8	0.8	1.0		
	9	1.0	1.1		
	10	0.8	0.9		
	Average	<b>0.9</b>	<b>1.0</b>		
Std. Dev.	0.1	0.1			
Type-II	1	1.3	1.4	≥.88	Pass
	2	1.4	1.5		
	3	1.4	1.4		
	4	1.5	1.6		
	5	1.3	1.5		
	6	1.5	1.5		
	7	1.3	1.4		
	8	1.5	1.3		
	9	1.5	1.3		
	10	1.3	1.5		
	Average	<b>1.4</b>	<b>1.4</b>		
Std. Dev.	0.1	0.1			

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Table 4b: Tear Resistance – D226 Samples					
Sample Designation	Sample	Tear Resistance (lbf)		D4869 Criteria	Result
		MD	XMD		
Type-I	1	0.9	0.9	≥.44	Pass
	2	1.0	1.0		
	3	1.0	0.8		
	4	1.0	1.0		
	5	1.0	1.0		
	6	0.9	1.1		
	7	1.0	1.1		
	8	1.0	0.9		
	9	0.8	1.0		
	10	0.9	0.9		
	Average	<b>0.9</b>	<b>1.0</b>		
Std. Dev.	0.0	0.1			
Type-II	1	3.6	3.7	≥.88	Pass
	2	3.5	3.5		
	3	3.0	3.5		
	4	3.9	4.2		
	5	3.5	3.6		
	6	3.1	4.1		
	7	3.4	4.0		
	8	3.2	3.3		
	9	3.0	3.5		
	10	3.0	3.6		
	Average	<b>3.3</b>	<b>3.7</b>		
	Std. Dev.	0.3	0.3		



**5. Liquid Water Transmission, ASTM D4869**

5.1 Specimen Preparation:

5.1.1 A single layer of the sheet good is mounted on a plywood substrate by overlapping and folding over all edges and stapling on the back-side of the board. Specimen is conditioned at 70 to 80°F and 30 to 55% RH for 24 hours prior to testing.

5.2 Procedure:

5.2.1 Specimen is positioned at a 14° incline with the shower head directly overhead and 18-inch above the center. Water supply is opened to flow rate of 40-42 gal/hr for 4 hours. The underside of the sheet good and top surface of plywood is examined for wetness.

5.3 Results:

5.3.1 See Table 5 below:

Table 5: Liquid Water Transmission				
Membrane	Test	Liquid Water Transmission	D4869 Criteria	Pass/Fail
<b>D4869</b>			No water transmission through specimen	--
Type-I	1	No Transmission		Pass
Type-II	2	No Transmission		Pass
<b>D226</b>				--
Type-I	3	No Transmission		Pass
Type-II	4	No Transmission		Pass



**6. Water Vapor Transmission: ASTM E96**

6.1 Specimen Preparation:

6.1.1 A set of three specimens is prepared for each membrane. Three cups for each sample are filled ¾ full with water. A specimen is cut from the membrane to the radius of the cup and the membrane is sealed to the top of the cup.

6.2 Procedure:

6.2.1 After the sealant is cured, the entire cup is weighed every 24hrs., while stored in a controlled environment of 75°F and 50% Humidity.

6.3 Results:

6.3.1 See Tables 6a – 6d, below.

Table 6a: Water Vapor Transmission—D4869 Type-I			
Specimen	Permeance	D4869 Criteria (perms)	Result
1	.03	≤5	Pass
2	.03		Pass
3	.04		Pass

Table 6b: Water Vapor Transmission—D4869 Type-II			
Specimen	Permeance	D4869 Criteria (perms)	Result
1	.03	≤3	Pass
2	.03		Pass
3	.04		Pass

Table 6c: Water Vapor Transmission—D226 Type-I			
Specimen	Permeance	D4869 Criteria (perms)	Result
1	.06	≤5	Pass
2	.05		Pass
3	.08		Pass

Table 6d: Water Vapor Transmission—D226 Type-II			
Specimen	Permeance	D4869 Criteria (perms)	Result
1	.02	≤3	Pass
2	.02		Pass
3	.03		Pass

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**7. Mass: ASTM D146**

7.1 Specimen Preparation:

7.1.1 Rolls are stored in a controlled environment of 75°F and 50% humidity prior to testing.

7.2 Procedure:

7.2.1 Net mass is calculated by taking the roll weight minus the wrapping and spool and dividing by the total area of the roll. Saturant and Felt masses are calculated by desaturating the membrane in Trichloroethane using a Soxhlet extractor. The respective weights are subtracted from the net mass and divided by the sample area. Saturation percent is calculated by dividing the saturant mass by the felt mass.

7.3 Results:

7.3.1 See Table 7, below.

Table 7: Specimen Component Masses									
Sample	Net Mass (lb/100ft <sup>2</sup> )	D4869 min.	Saturant Mass (lb/100ft <sup>2</sup> )	D4869 min.	Felt Mass (lb/100ft <sup>2</sup> )	D4869 min.	Saturation (%)	D4869 min.	Result
D4869 Type-I	9.2	≥8	4.65	≥4	4.55	≥4	102.2	≥100	Pass
D226 Type-I	9.5		4.75		4.67		101.81		Pass
D4869 Type-II	20.2	≥20	11.09	≥10.8	9.12	≥9	121.61	≥120	Pass
D226 Type-II	24.4		13.93		10.57		131.88		Pass

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**8. Moisture Content: ASTM D146**

8.1 Specimen Preparation:

8.1.1 The sample is cut into 1-in square pieces. A random sample of the pieces weighing a total of 50g are selected and placed into the distilling device.

8.2 Procedure:

8.2.1 The water that is distilled from the sample is then measured and the mass of the water content is calculated noting that 1 mL of water weighs 1g. The moisture is calculated against the total weight of the distilled sample.

8.3 Results:

8.3.1 See Tables 8, below.

Table 8: Moisture Content					
Specimen	Sample mass (g)	Volume water (mL)	% Water	D4869 Criteria	Result
D4869 Type-I	50.001	1.0	2.0%	≤2.0%	Pass
D4869 Type-II	50.006	0.7	1.4%		Pass
D226 Type-I	50.025	0.9	1.8%		Pass
D226 Type-II	50.025	0.7	1.4%		Pass



**9. Ash Content: ASTM D146**

9.1 Specimen Preparation:

9.1.1 The dry desaturated felt is cut into small pieces and 25g is placed into a porcelain crucible.

9.2 Procedure:

9.2.1 The sample is heated to a temperature of 221°F until a constant weight is obtained. This mass is then divided by the initial mass and the percent is calculated by multiplying by 100.

9.3 Results:

9.3.1 See Tables 9, below.

Table 9: Ash Content					
Specimen	Initial mass (g)	Final Mass (g)	% Ash	D4869 Criteria	Result
D4869 Type-I	11.8	0.4	3.2%	≤10.0%	Pass
D4869 Type-II	16.1	0.9	5.6%		Pass
D226 Type-I	10.7	0.6	5.1%		Pass
D226 Type-II	24.2	1.3	5.5%		Pass

**EXTERIOR RESEARCH & DESIGN, LLC.**

MAIN: 80 Yesler Way • Suite 200 • Seattle, WA 98104 • P: (206) 467-0054 • F: (206) 467-5840  
 EAST: 2 Mattoon Road • Waterbury, CT 06708 • P: (203) 596-7884 • F: (203) 596-7058  
 LAB: 600 W. Nickerson Street • Seattle, WA 98119 • P: (206) 298-3620 • F: (206) 298-3130



TL-199 Certified



**10. Roll Width: ASTM D146**

10.1 Specimen Preparation:

10.1.1 Specimens were stored in a controlled environment at 75°F and 50% humidity for 24hr. prior to testing.

10.2 Procedure:

10.2.1 The roll width was measured to the nearest 1/16-in at a random location along its length.

10.3 Results:

10.3.1 See Table 10, below.

Table 10: Roll Width			
Specimen	Width (in)	D4869 Criteria	Result
D4869 Type-I	36-3/8	≥36	Pass
D4869 Type-II	36-1/8		Pass
D226 Type-I	36-3/8		Pass
D226 Type-II	36-1/8		Pass

**Conclusions:** Trinity | ERD has tested the four felt material supplied by the named client in accordance with the procedures outlined in ASTM D4869. All materials met all requirements.

It should be noted that full length rolls were not supplied therefore total roll area was not reported.

Please contact our offices with any questions.

Sincerely,  
 TRINITY | ERD

Charles Phillips  
 Laboratory Systems Manager

Robert Nieminen, P.E.  
 Vice President

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## Lixian QingShan Waterproof Material Co.,Ltd

### MATERIAL SAFETY DATA SHEET

#### SECTION 1

#### Product name and Company Identification

**Product Name:** Asphalt Saturated Roll Roofing Products

**Manufacturer Info:**

Lixian qingshan waterproof material co.ltd  
Donwei, lixian county, Hebei province China  
Tel:0086-312-6041756 Fax:0086-312-6045135

#### SECTION 2

#### PRODUCT INFORMATION

**PRODUCT NAMES (S):** #30-ASTM 4869 (216SQFT)

**BRAND NAME:** Qing Shan Brand

#### SECTION 3

Lixian Qingshan waterproof material co.,ltd MSDS Sheet

Component name	Component	Percent
CAS#	Organic Felt	42-48%
N/A	Asphalt	52-58%
8052-42-4		

#### SECTION 4

#### Hazards Identification

**Appearance and Odor:** Dark mat with an asphalt odor.  
Under normal conditions of use, this product is not expected to create any unusual emergency hazards.

#### SECTION 5

#### First Aid Measures

#### 1) Potential Health Effects

**Inhalation:** Remove the victim to fresh air, if breathing is difficult, give oxygen and get medical attention

#### 2). Skin:

Wash hands with soap, washing hands before eating or using the rest room.

#### 3.) Absorption

N/A

#### 4)Ingestion

Product is not intended to be ingested or eaten under normal conditions of use. If ingested, Drink hot water, clean throat and Seek medical assistance.

#### 5) Eyes

Do not rub or scratch your eyes, flush with large amount of water

#### SECTION 6

#### Fire Fighting Measures

**Summary:** Burning product may produced thick black smoke  
Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

#### Extinguishing Media:

Foam, carbon dioxide.

Flash Point: N/A

FP test method: N/A

Upper Flammable Limit (UFL): Not determined

Lower Flammable Limit (LFL): Not determined

Flame Classification: Not determined

Auto Ignition: Not determined

#### SECTION 7

##### Physical and Chemical Properties

Appearance and odor: Dark mat, Asphalt odor

Physical State: Solid

pH: Not applicable

Vapor Density: Not applicable

Boiling Point: >370°C/>700°F

Melting Point: Not applicable

Specific Gravity: Variable

Freezing Point: Not determined

Solids Content: Not applicable

Evaporation Rate: Not applicable

Viscosity: Not applicable

#### SECTION 8

##### Chemical Stability and Reactivity Information

##### 1) Chemical Stability

This is a stable material

##### 2) Incompatibility material

Strong oxidizing agents, reducing agents, strong acids and alkalis.

##### 3) Hazardous Decomposition products

None

##### 4) Hazardous Polymerization

Will not occur.

#### SECTION 9

##### Ecological Information

General Product Information:

No additional information available.

#### SECTION 10

##### Disposal Considerations

##### Summary Information:

This product, as supplied, is not regulated as a hazardous waste by the EPA under RCRA regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the EPA.

#### SECTION 11

##### Transportation Information

This product is not classified a hazardous material for transport.

Disclaimer: The technical information above is believed to be accurate. No warranty, expressed or implied, is intended. The information is provided solely for your consideration and information.

## Lixian QingShan Waterproof Material Co.,Ltd

### MATERIAL SAFETY DATA SHEET

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#### Product name and Company Identification

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#### Manufacturer Info:

Lixian qingshan waterproof material co.ltd  
Donwei, lixian county, Hebei province China  
Tel:0086-312-6041756 Fax:0086-312-6045135

#### SECTION 2

#### PRODUCT INFORMATION

PRODUCT NAMES (S) : #15-ASTM 4869 (432SQFT)

BRAND NAME: Qing Shan Brand

#### SECTION 3

Lixian Qingshan waterproof material co.,ltd MSDS Sheet

Component name	Component	Percent
CAS#	Organic Felt	42-48%
N/A	Asphalt	52-58%
8052-42-4		

#### SECTION 4

#### Hazards Identification

Appearance and Odor: Dark mat with an asphalt odor.  
Under normal conditions of use, this product is not expected to create any unusual emergency hazards.

#### SECTION 5

#### First Aid Measures

#### 1) Potential Health Effects

Inhalation: Remove the victim to fresh air, if breathing is difficult, give oxygen and get medical attention

#### 2). Skin:

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#### 3.) Absorption

N/A

#### 4)Ingestion

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