

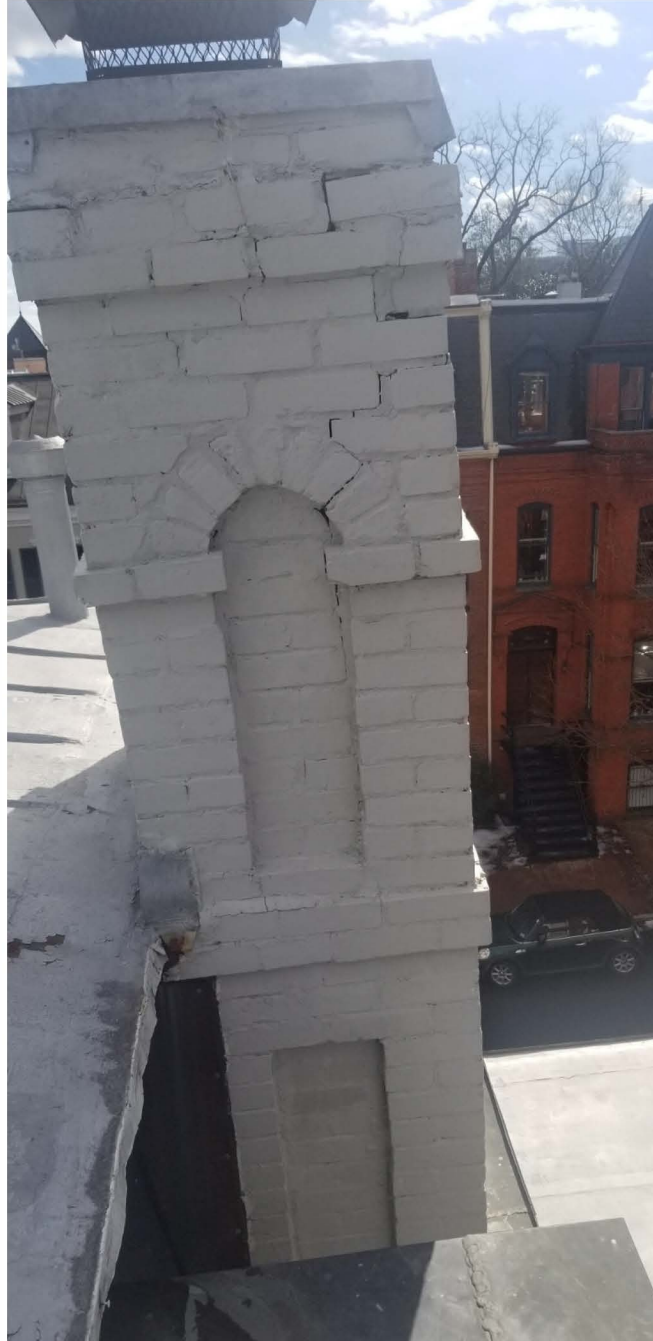
3321 N Street NW WDC 20007
Chimney repair and in-kind flat roof replacement.



3321 N Street NW WDC 20007
Chimney repair and in-kind flat roof replacement.

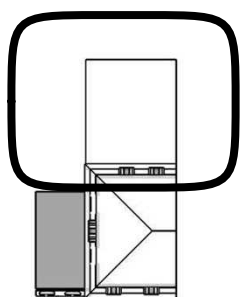
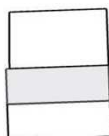


3321 N Street NW WDC 20007
Chimney repair and in-kind flat roof replacement.



3321 N St NW, Washington, DC 20007

Report: 40722572



Area of roof
work

In this 3D model, facets appear as semi-transparent to reveal overhangs.

PREPARED FOR

Contact: Beth Davis
Company: BD Contractor Services, LLC
Address: 14508 Chesterfield Rd
Rockville, MD 20853
Phone: 301-370-0369

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MEASUREMENTS

Total Roof Area = 3,694 sq ft
Total Roof Facets = 54
Predominant Pitch = 1/12
Number of Stories > 1
Total Ridges/Hips = 101 ft
Total Valleys = 32 ft
Total Rakes = 186 ft
Total Eaves = 335 ft

Measurements provided by www.eagleview.com



Certified Accurate

www.eagleview.com/Guarantee.aspx

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IMAGES

The following aerial images show different angles of this structure for your reference.

Top View



3321 N St NW, Washington, DC 20007

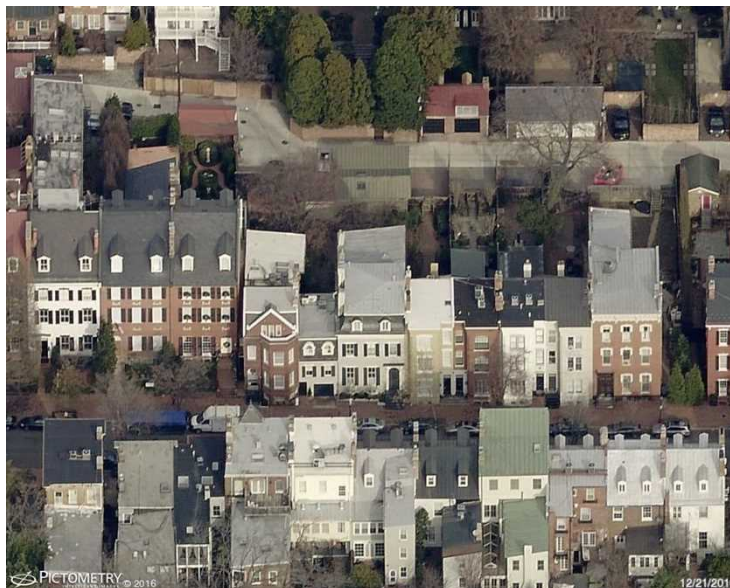
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IMAGES

North Side



South Side

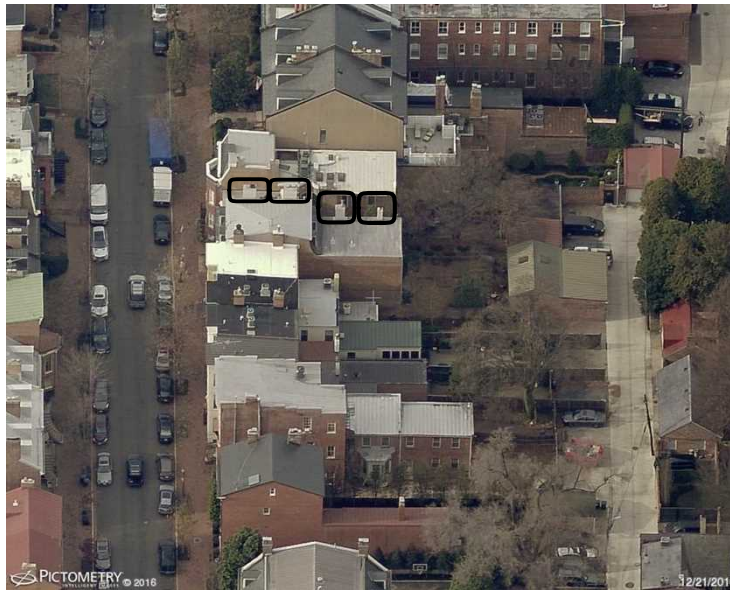


3321 N St NW, Washington, DC 20007

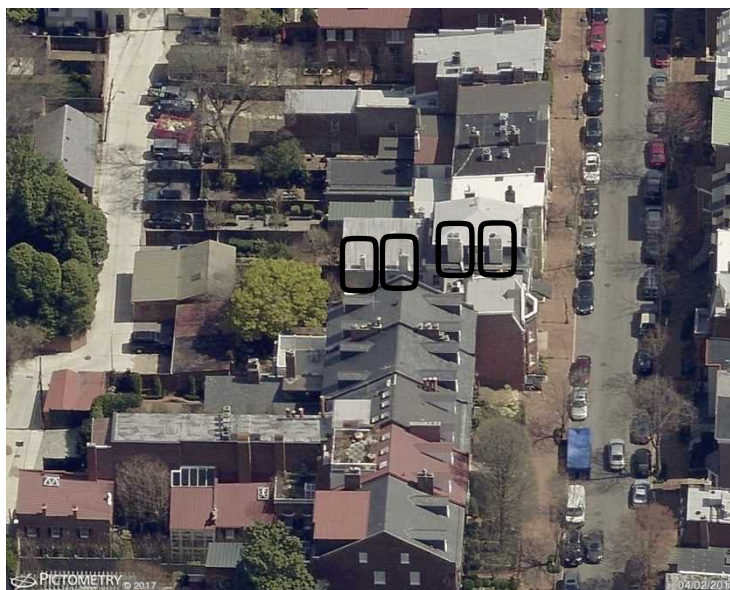
Report: 40722572

IMAGES

East Side



West Side



LENGTH DIAGRAM

Total Line Lengths:

Ridges = 36 ft

Hips = 65 ft

Valleys = 32 ft

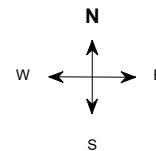
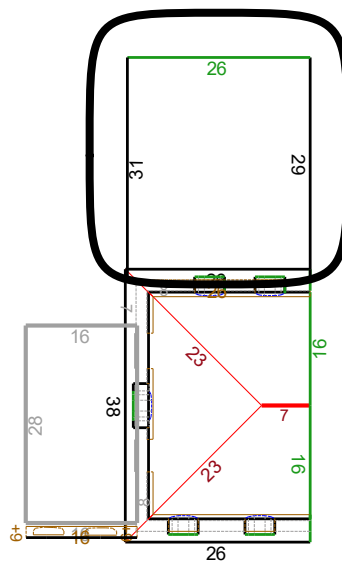
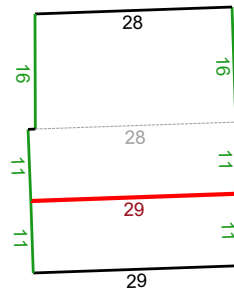
Rakes = 186 ft

Eaves = 335 ft

Flashing = 115 ft

Step flashing = 129 ft

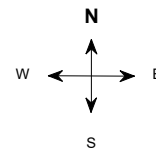
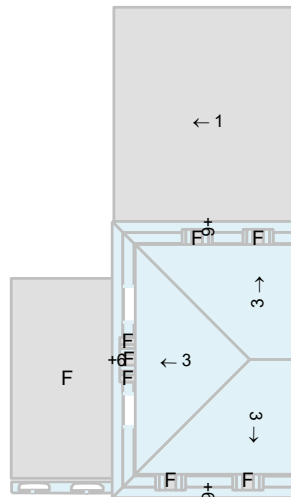
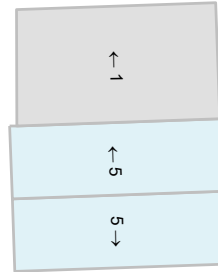
Parapets = 86 ft



Note: This diagram contains segment lengths (rounded to the nearest whole number) over 5.0 Feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).

PITCH DIAGRAM

Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 1/12



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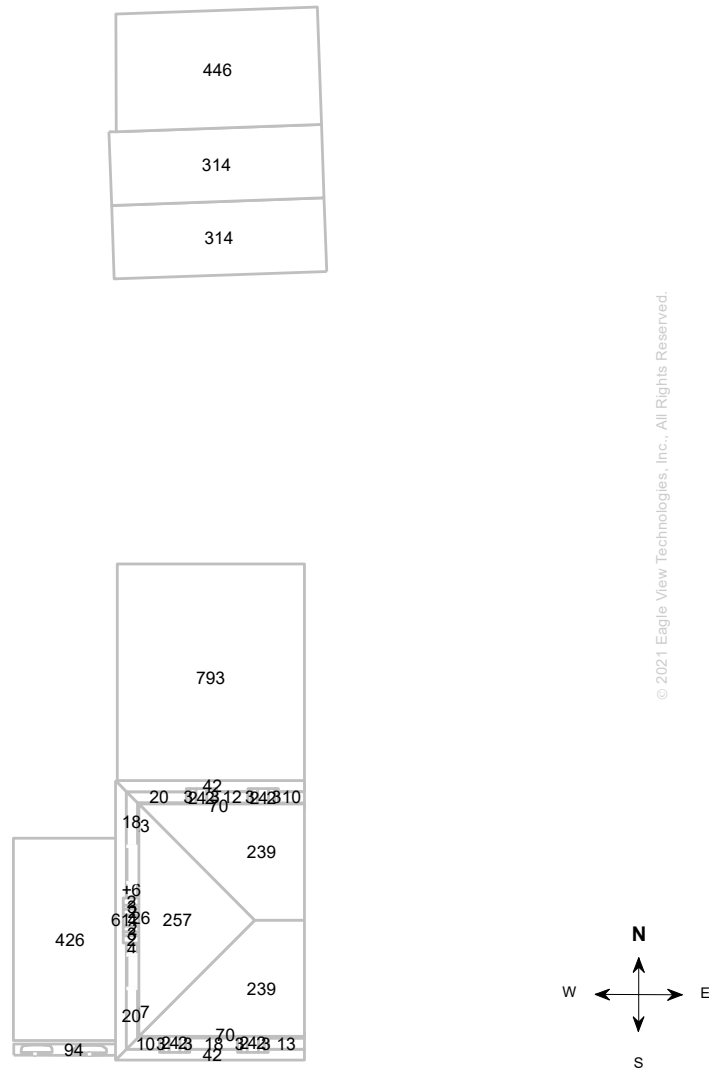
Note: This diagram contains labeled pitches for facet areas larger than 20.0 square feet. In some cases, pitch labels have been removed for readability. Blue shading indicates a pitch of 3/12 and greater. Gray shading indicates flat, 1/12 or 2/12 pitches. If present, a value of "F" indicates a flat facet (no pitch).

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AREA DIAGRAM

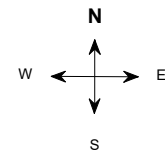
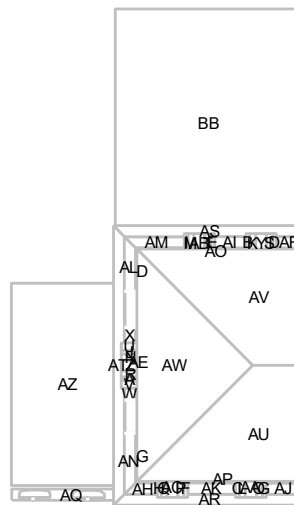
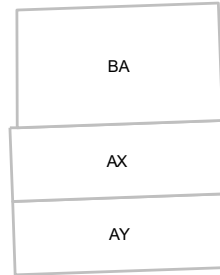
Total Area = 3,694 sq ft, with 54 facets.



Note: This diagram shows the square feet of each roof facet (rounded to the nearest Foot). The total area in square feet, at the top of this page, is based on the non-rounded values of each roof facet (rounded to the nearest square foot after being totaled).

NOTES DIAGRAM

Roof facets are labeled from smallest to largest (A to Z) for easy reference.



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3321 N St NW, Washington, DC 20007

Report: 40722572

REPORT SUMMARY

Structure #1

Areas per Pitch									
Roof Pitches	0/12	1/12	3/12	6/12	8/12	18/12	29/12	60/12	70/12
Area (sq ft)	450.2	793.2	734	145.1	24.1	130.7	31.7	217.4	93.8
% of Roof	17.2%	30.3%	28%	5.5%	0.9%	5%	1.2%	8.3%	3.6%

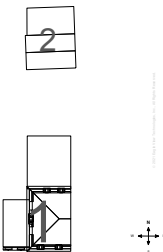
The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

Structure Complexity		
Simple	Normal	Complex

Waste Calculation									
NOTE: This waste calculation table is for asphalt shingle roofing applications. All values in table below only include roof areas of 3/12 pitch or greater. For total measurements of all pitches, please refer to the Lengths, Areas, and Pitches section below.									
Waste %	0%	9%	14%	19%	22%	24%	26%	29%	34%
Area (Sq ft)	1377	1501	1570	1639	1680	1708	1736	1777	1846
Squares *	14.00	15.33	16.00	16.66	17.00	17.33	17.66	18.00	18.66
	Measured					Suggested			

* Squares are rounded up to the 1/3 of a square.

Additional materials needed for ridge, hip, and starter lengths are not included in the above table. The provided suggested waste factor is intended to serve as a guide—actual waste percentages may differ based upon several variables that EagleView does not control. These waste factor variables include, but are not limited to, individual installation techniques, crew experiences, asphalt shingle material subtleties, and potential salvage from the site. Individual results may vary from the suggested waste factor that EagleView has provided. The suggested waste is not to replace or substitute for experience or judgment as to any given replacement or repair work.



Total Roof Facets = 51

Lengths, Areas and Pitches

Ridges = 7 ft (1 Ridges)
Hips = 65 ft (8 Hips)
Valleys = 31 ft (25 Valleys)
Rakes† = 109 ft (36 Rakes)
Eaves/Starter‡ = 278 ft (26 Eaves)
Drip Edge (Eaves + Rakes) = 387 ft (62 Lengths)
Parapet Walls = 87 (4 Lengths)
Flashing = 115 ft (17 Lengths)
Step flashing = 129 ft (37 Lengths)
Predominant Pitch = 1/12
Total Area (All Pitches) = 2621 sq ft

Property Location

Longitude = -77.0669670
Latitude = 38.9069140

Notes

This was ordered as a residential property. There were no changes to the structure in the past four years.

† Rakes are defined as roof edges that are sloped (not level).
‡ Eaves are defined as roof edges that are not sloped and level.

REPORT SUMMARY

Structure #2

Areas per Pitch		
Roof Pitches	1/12	5/12
Area (sq ft)	445.5	628.3
% of Roof	41.5%	58.5%

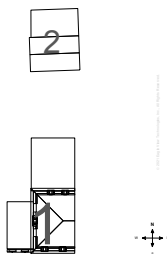
The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

Structure Complexity		
Simple	Normal	Complex

Waste Calculation									
NOTE: This waste calculation table is for asphalt shingle roofing applications. All values in table below only include roof areas of 3/12 pitch or greater. For total measurements of all pitches, please refer to the Lengths, Areas, and Pitches section below.									
Waste %	0%	2%	7%	10%	12%	14%	17%	22%	27%
Area (Sq ft)	629	642	674	692	705	718	736	768	799
Squares *	6.33	6.66	7.00	7.00	7.33	7.33	7.66	8.00	8.00
	Measured				Suggested				

* Squares are rounded up to the 1/3 of a square.

Additional materials needed for ridge, hip, and starter lengths are not included in the above table. The provided suggested waste factor is intended to serve as a guide—actual waste percentages may differ based upon several variables that EagleView does not control. These waste factor variables include, but are not limited to, individual installation techniques, crew experiences, asphalt shingle material subtleties, and potential salvage from the site. Individual results may vary from the suggested waste factor that EagleView has provided. The suggested waste is not to replace or substitute for experience or judgment as to any given replacement or repair work.



Total Roof Facets = 3

Lengths, Areas and Pitches

Ridges = 30 ft (1 Ridges)
Hips = 0 ft (0 Hips)
Valleys = 0 ft (0 Valleys)
Rakes† = 76 ft (6 Rakes)
Eaves/Starter‡ = 58 ft (3 Eaves)
Drip Edge (Eaves + Rakes) = 134 ft (9 Lengths)
Parapet Walls = 0 (0 Lengths)
Flashing = 0 ft (0 Lengths)
Step flashing = 0 ft (0 Lengths)
Predominant Pitch = 5/12
Total Area (All Pitches) = 1074 sq ft

Property Location

Longitude = -77.0669670
Latitude = 38.9069140

Notes

This was ordered as a residential property. There were no changes to the structure in the past four years.

† Rakes are defined as roof edges that are sloped (not level).
‡ Eaves are defined as roof edges that are not sloped and level.

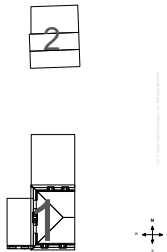
REPORT SUMMARY

All Structures

Areas per Pitch										
Roof Pitches	0/12	1/12	3/12	5/12	6/12	8/12	18/12	29/12	60/12	70/12
Area (sq ft)	450.2	1238.7	734.0	628.4	145.0	24.0	130.5	32.0	217.3	93.8
% of Roof	12.2%	33.5%	19.9%	17%	3.9%	0.6%	3.5%	0.9%	5.9%	2.5%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

All Structures Totals



Total Roof Facets = 54

Lengths, Areas and Pitches

Ridges = 36 ft (2 Ridges)
Hips = 65 ft (8 Hips).
Valleys = 32 ft (25 Valleys)
Rakes[†] = 186 ft (42 Rakes)
Eaves/Starter[‡] = 335 ft (29 Eaves)
Drip Edge (Eaves + Rakes) = 521 ft (71 Lengths)
Parapet Walls = 86 (4 Lengths).
Flashing = 115 ft (17 Lengths)
Step flashing = 129 ft (37 Lengths)
Predominant Pitch = 1/12
Total Area (All Pitches) = 3,694 sq ft

Property Location

Longitude = -77.0669670
Latitude = 38.9069140

Notes

This was ordered as a residential property. There were no changes to the structure in the past four years.

Measurements by Structure									
Structure	Area (sq ft)	Ridges (ft)	Hips (ft)	Valleys (ft)	Rakes (ft)	Eaves (ft)	Flashing (ft)	Step Flashing (ft)	Parapets (ft)
1	2620	7	65	31	109	278	115	129	87
2	1074	30	0	0	76	58	0	0	0

All values in this table are rounded up to the nearest Foot for each separate structure. Measurement totals displayed elsewhere in this report are added together before rounding which may cause totals to differ.

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

Parapet Wall Area Table							
Wall Height (ft)	1	2	3	4	5	6	7
Vertical Wall Area	86	172	258	344	430	516	602

This table provides common parapet wall heights to aid you in calculating the total vertical area of these walls. Note that these values assume a 90 degree angle at the base of the wall. Allow for extra materials to cover cant strips and tapered edges.

- † Rakes are defined as roof edges that are sloped (not level).
‡ Eaves are defined as roof edges that are not sloped and level.

3321 N St NW, Washington, DC 20007

Report: 40722572

Online Maps

Online map of property

http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=3321+N+St+NW,Washington,DC,20007

Directions from BD Contractor Services, LLC to this property

http://maps.google.com/maps?f=d&source=s_d&saddr=14508+Chesterfield+Rd,Rockville,MD,20853&daddr=3321+N+St+NW,Washington,DC,20007



3321 N St NW

Washington, DC 20007

Response

1. A map or satellite image showing where this property is located in Georgetown.
 - a. **Response: Map has been added to the final page of the Eagleview set**
2. Detailed and labeled photos of the entire property.
 - a. **Photos are labeled for location and areas of work have been outlined.**
3. Please specify exactly which part of the roof would be replaced.
 - a. **Only the flat roof area in the rear will be replace.**
4. Please include information about the existing roof material and the proposed roof material.
 - a. **The current flat roof is standing seam tin and we will be replacing with white TPO roofing (see specification sheet attached)**
5. Please including existing and proposed standing seam measurements, drawings for the treatment of the ridge, and information about the treatment of the firewalls (if any).
 - a. **No work is being done on the pitched roof that is visible from street nor firewalls.**
6. Please include information about whether the gutters and downspouts would be replaced. If they're to be replaced, please include materials, measurements, and style.
 - a. **No gutters or downspouts are included in this scope of work.**
7. Please include detailed information about plans for chimney repair. Repointing? Rebuilding? Please clarify.
 - a. **The damaged and cracked chimney areas shown in the photo will be replaced in kind, repointed and painted identically to what is existing.**

TECHNICAL INFORMATION SHEET

UltraPly™ TPO Membrane

Item Description

1 Roll

Item Number

Various



Meets or exceeds ASTM D 6878.

Product Information

Description:

Firestone UltraPly TPO is a flexible Thermoplastic Polyolefin roofing membrane that is produced with polyester weft-inserted reinforcement. UltraPly TPO membrane meets or exceeds all requirements for ASTM D 6878 Specification. This heat weldable TPO membrane is available in 45 mil (1.14 mm) and 60 mil (1.52 mm) thicknesses. This reflective membrane is suitable for a variety of low-slope applications.

Method of Application:

1. Substrates must be clean, dry, smooth, and free of sharp edges, fins, loose or foreign materials, oil, grease, and other materials that may damage the membrane.
2. All roughened surfaces that can damage the membrane shall be repaired as specified to offer a smooth substrate.
3. All surface voids greater than 1/4" (6.3 mm) wide shall be properly filled with an acceptable fill material.
4. Firestone UltraPly TPO membrane is installed as continuous roofing or waterproofing layer on the roof. Rolls are overlapped (side laps and end laps) prior to the heat welding of the seam areas.
5. Install the UltraPly TPO Roofing System in accordance with current Firestone UltraPly TPO specifications, details and workmanship requirements.

Storage:

- Store away from sources of punctures and physical damage.
- Assure that structural decking will support the loads incurred by material when stored on rooftop. The deck load limitations should be specified by the project designer.
- Store away from ignition sources as membrane will burn when exposed to open flame.

Precautions:

- Refer to Safety Data Sheets (SDS) for safety information.
- Exercise caution when lifting, moving, transporting, storing or handling membrane rolls to avoid sources of punctures and possible physical damage.
- Contact your Building Systems Advisor at 1-800-428-4511 for specific recommendations regarding chemical or waste product compatibility with Firestone UltraPly TPO Membrane.

LEED® Information:

Post Consumer Recycled Content: 0%
Pre Consumer Recycled Content: 15%
Manufacturing Location: Wellford, SC
Tuscumbia, AL

NOTE: LEED® is a registered trademark of the U.S. Green Building Council.



ICC-ES
ESR-2831

CCMC 13348-R

TECHNICAL INFORMATION SHEET

UltraPly™ TPO Membrane

Typical Properties (Meets or exceeds ASTM D 6878 Specification)

Property	ASTM Standard	Performance Minimum	Typical Performance 45 mil	Typical Performance 60 mil
Overall Thickness:	D 751	0.039" (1 mm)	0.045" (1.14 mm) ± 10%	0.060" (1.52 mm) ± 10%
Coating over Scrim:	D 7635	0.015" (0.38 mm)	0.017" (0.43 mm)	0.021" (0.53 mm)
Breaking Strength:	D 751, Grab Method	220 lbf (979 N)	340 lbf (1,512 N)	390 lbf (1,735 N)
Elongation of Reinforcement Break:	D 751, Grab Method	15%	25%	25%
Tearing Strength:	D 751	55 lbf (245 N)	120 lbf (534 N)	120 lbf (534 N)
Brittleness Point:	D 2137	-40 °F (-40 °C)	Pass	Pass
Ozone Resistance, No Cracks:	D 1149	Pass (No Cracks)	Pass	Pass

Properties After Heat Aging (Retained Values) (ASTM D 573-5376 h (224 days or 32 weeks) at 240 °F (116 °C)):

Breaking Strength:	D 751, Grab Method	90% Minimum	> 90%	> 90%
Elongation at Break:	D 751, Grab Method	90% Minimum	> 90%	> 90%
Tearing Strength:	D 751	60% Minimum	> 60%	> 60%
Weight of Change:		± 1% Maximum	< 1%	< 1%
Linear Dimension Change:	D 1204, 6 h at 158 °F (70 °C)	± 1% Maximum	< 1%	< 1%
Water Absorption:	D 471	± 3% Maximum	< 3%	< 3%
Weather Resistance, 80 °C Black Panel, no cracking, crazing when wrapped around a 3" mandrel and inspected at 7X magnification:	G 155	10,080 kJ/m ² Minimum	> 60,000 kJ/m ²	> 60,000 kJ/m ²
Puncture Resistance:	FTM 101C, Method 2031	---	265 (1,180)	300 (1,300)
Dynamic Puncture Resistance MD:	D 5635	---	Pass (20 J)	Pass (40 J)
Dynamic Puncture Resistance CD:	D 5635	---	Pass (35 J)	Pass (50 J)
Static Puncture Resistance:	D 5602	---	Pass (25 kg)	Pass (25 kg)
Air Permeance (Material):	E 2178*	< 0.004 ft ³ /ft ² (0.02 L/(s*m ²))	Pass	Pass

*The ASTM 2178 values listed are for the air permeance of the UltraPly TPO Membrane component only. For use of the product as a component in an air barrier assembly, please consult your Firestone Building Systems Advisor (BSA), Code Agency or Authority having Jurisdiction (AHJ) for the acceptable air barrier assembly details.

TECHNICAL INFORMATION SHEET



UltraPly™ TPO Membrane

Product Sizes

Membrane Thickness: 0.045" (1.14 mm) Membrane Weight: 0.23 lb/ft² (1.1 kg/m²)		Membrane Thickness: 0.060" (1.52 mm) Membrane Weight: 0.31 lb/ft² (1.5 kg/m²)	
<u>Available Sizes</u>	<u>Available Colors</u>	<u>Available Sizes</u>	<u>Available Colors</u>
5' x 100' (1.5 x 30.5 m)	White, Tan, Gray	5' x 100' (1.5 x 30.5 m)	White, Tan, Gray
5' x 200' (1.5 x 61 m)	White	5' x 200' (1.5 x 61 m)	White
6' 2" x 100' (1.9 x 30.5 m)	White, Tan, Gray	6' 2" x 100' (1.9 x 30.5 m)	White, Tan, Gray
8' x 100' (2.4 x 30.5 m)	White, Tan, Gray	8' x 100' (2.4 x 30.5 m)	White, Tan, Gray
8' x 200' (2.4 x 61 m)	White	8' x 200' (2.4 x 61 m)	White
10' x 100' (3.0 x 30.5 m)	White, Tan, Gray	10' x 100' (3.0 x 30.5 m)	White, Tan, Gray
10' x 200' (3.0 x 61 m)	White	10' x 200' (3.0 x 61 m)	White
12' 4" x 100' (3.8 x 30.5 m)	White, Tan, Gray	12' 4" x 100' (3.8 x 30.5 m)	White, Tan, Gray
12' 4" x 200' (3.8 x 61 m)	White	12' 4" x 200' (3.8 x 61 m)	White

Radiative Properties

<u>Cool Roof Rating Council (CRRC): Initial / 3 yr</u>	<u>White</u>	<u>Tan</u>	<u>Gray</u>
Solar Reflectance	0.79 / 0.68	0.61 / 0.55	0.34 / 0.34
Thermal Emittance	0.85 / 0.83	0.81 / 0.84	0.89 / 0.88
Solar Reflectance Index (SRI)	98 / 81	71 / 63	37 / 36
Rated Product ID	0008	0015	0032
Licensed Manufacturer ID	0608	0608	0608
Classification	Production Line	Production Line	Production Line
<u>ENERGY STAR®: Initial / 3 yr</u>	<u>White</u>	---	---
Solar Reflectance	0.79 / 0.78*		
Thermal Emittance	0.85		
* White membrane sample cleaned prior to age test.			
<u>LEED®</u>	<u>White</u>	<u>Tan</u>	<u>Gray</u>
Solar Reflectance – ASTM E 903	0.81	0.63	0.37
Thermal Emittance – ASTM E 408	0.95	0.95	0.95
Solar Reflectance Index (SRI) – ASTM E 1980	102	77	43



ENERGY STAR is only
valid in the United States



Please contact Quality Building Services Technical Department at 1-800-428-4511 for further information.

This sheet is meant to highlight Firestone products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials which meet published Firestone product specifications. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Firestone representative is authorized to vary this disclaimer.