

# ZMARTBUILD ROOF SHINGLES

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# About Us

**ZMARTBUILD** offers an array of premium building solutions and materials, including walls, ceilings, and floors. Our end-to-end services are thoughtfully designed to enhance the efficiency and precision of your building projects, representing a modern approach to construction excellence.







Montage Roof Shingles Main Characteristics			
Performance	Test Method	Performance	Comparison
Unit weight of the product	KS F4750:2016-1	4302 g/m <sup>2</sup>	
Glass Felt of a unit mass	KS F4750:2016-1	91 g/m <sup>2</sup>	

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Per unit mass of sheathing	KS F4750:2016-1	3172 g/m <sup>2</sup>	
Per unit mass of asphalt	KS F4750:2016-1	1168 g/m <sup>2</sup>	
Asphalt penetration of glass felt	KS F4750:2016-1	1086%	
Asphalt penetration of the situation	KS F4750:2016-1	pass	(20±2) ℃ (50±10)% R.H
Tear strength-Length	KS F4750:2016-1	13 N	(30±10)% K.H
Tear strength-Width	KS F4750:2016-1	9 N	
Flexural property-Length	KS F4750:2016-1	pass	
Flexural property-Width	KS F4750:2016-1	pass	
Heat resistance	KS F4750:2016-1	pass	

# Dual-Layer Roof Shingles Main Characteristics

Performance	Test Method	Performance	Comparison
Unit weight of the product	KS F4750:2016-1	8388 g/m <sup>2</sup>	
Glass Felt of a unit mass	KS F4750:2016-1	185 g/m²	
Per unit mass of sheathing	KS F4750:2016-1	6388 g/m <sup>2</sup>	
Per unit mass of asphalt	KS F4750:2016-1	1818 g/m <sup>2</sup>	-
Asphalt penetration of glass felt	KS F4750:2016-1	976%	
Asphalt penetration of the situation	KS F4750:2016-1	pass	(20±2) ℃ (50±10)% R.H
Tear strength-Length	KS F4750:2016-1	20 N	(30±10) % R.H
Tear strength-Width	KS F4750:2016-1	16 N	
Flexural property-Length	KS F4750:2016-1	pass	
Flexural property-Width	KS F4750:2016-1	pass	
Heat resistance	KS F4750:2016-1	pass	

# **3-Tab Roof Shingles Main Characteristics**

Joint strangth	Test Method	Performance	Comparison
Indentation resistance	KS F4750:2016-1	Passed	
Flexural property - Not treated- Front side (-10°C)	KS F4750:2016-1	Passed	
Flexural property - Not treated- Front side (-10°C)	KS F4750:2016-1	Passed	(20±2) ℃
Flexural property - After heating- Front side (-10°C)	KS F4750:2016-1	Passed	
Flexural property - After heating- Front side (-10°C)	KS F4750:2016-1	Passed	

# MONTAGE ROOF SHINGLES

It has its own top and bottom edge processing, so there is no need to apply adhesive, making installation quick and easy. The honeycomb shape and shading make the roof stand out even more.



# DUAL-LAYER ROOF SHINGLES

By using top and bottom bonding, it not only possesses strong durability and wind resistance, but also creates a beautiful roof through a threedimensional shadow effect



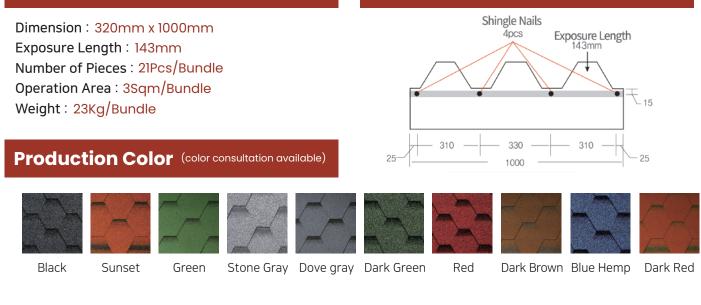
# 3-TAB ROOF SHINGLES

With its own top and bottom bonding, there is no need to apply adhesive, making installation quick and easy.

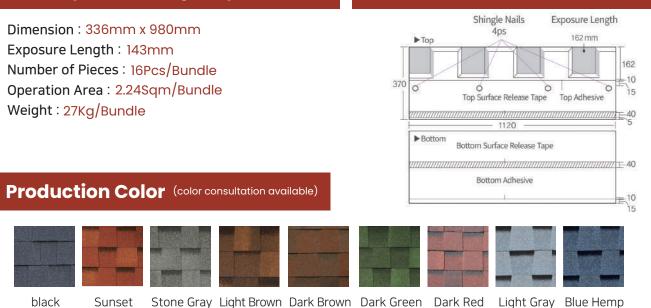


#### Montage Roof Shingles Specifications

### Shingle Detail Drawing



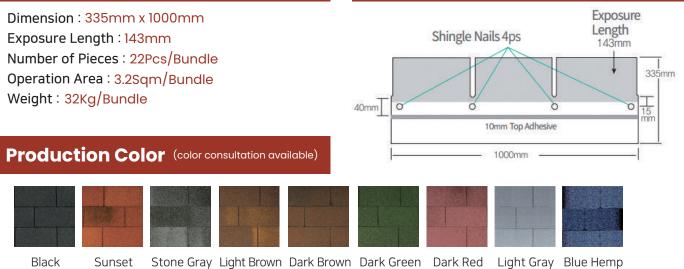
#### **Dual-Layer Roof Shingles Specifications**



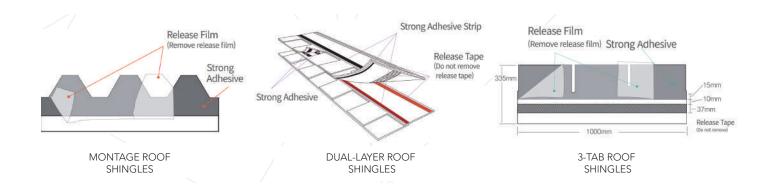
# 3-Tab Roof Shingles Specifications

### Shingle Detail Drawing

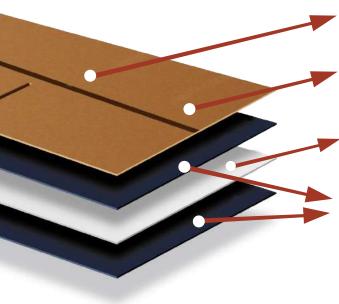
**Shingle Detail Drawing** 



## **Construction Method**



### **Product Features**



#### SUPER STRONG SEALANT

It is a differentiated technology with excellent adhesion with a unique adhesive technology for waterproof asphalt shingle.

**COATED COLOR GRANULE** - Various colors can be realized with self-developed waterproof asphalt shingle color yarn, excellent adhesion through 'surface coating' and maintaining color for a long time without worrying about bleaching such as stone powder separation. And they have UV protection functions.

**- FIBERGLASS** - If the center material is nonwoven, it is vulnerable to shrinkage and expansion, and the ends can be dried, such as with corners, but in the case of glass fibers, there is less shrinkage and expansion due to temperature

**BLOWN WATERPROOF ASPHALT** - High-quality asphalt in Korea is used, and it has strength that does not melt down even at 100 degrees. Elasticity is abundant, hardness change due to temperature change is small, and resistance to impact is strong. In other words, it is strong in a high-temperature and humid environment due to its high softening point and is sufficiently suitable for the four seasons in Korea compared to other products.

It is important to emphasize that third-party products (US, CANADA ETC) are mainly used at cool temperatures and have a low softening point. If the high temperature persists, it may be pressed, flowing and deformed due to too hot weather. Our product is developed to beat the heat, and for example, a metal roof can go up to 70 to 80 degrees, but it can be built in such a place.

### **Product Warranty**

#### Montage Roof Shingles



#### Dual-Layer Roof Shingles



#### 3-Tab Roof Shingles



# Technical Data Sheet : Dual-Layer Roof Shingles

	CONTENTS	PRODUCT
1	Manufacturer's Warranty	30 years
2	Type of Bitumen	Oxidized Bitumen (for heat resistance)
3	Production Standard	KS F4750
4	Thickness per Layer	1st layer - 2.8mm, 2nd layer - 5.6mm
5	Overall Height of Shingle	336mm
6	Visible Part Height	143mm
7	Total Height of Laminated Part	166mm
8	Length of Shingle	980mm
9	Top Surface Protection	Mineral Granules
10	Height of Shadow Part	35mm
11	Visible Defects	None
12	Dust Release Rate	Loss of 0.5
13	Bottom Surface Protection	Fiberglass (Underlay) + PET Film + Bond
14	Height of Strip on Shingle Surface	N/A
15	Number of Shingles per Bundle	16PCS
16	Coverage per Bundle (Roofing Square Feet)	2.24m2
17	Average Weight per Shingle	1.7kg
18	Average Weight per Roof Area	9.5kg
19	Weight of Shingle Bundle	27kg
20	High-Temperature Resistance	100°c
21	Weight of Carrier	95g/m2
22	Moisture Absorption Rate (%)	0.5.%
23	Tensile Strength MD/CD	978/600
24	Tear Strength	360 N
25	Minimum Mass of Asphalt Compound	1100g/m2 or above
26	Linear Consumption of Basalt per meter	1550g
27	3D Roof Effect	UV Protection, Weather Resistance against Heavy Rain and Severe Weather
28	Target Stone for Accumulation	N/A
29	BASE (SUBSTRATE)	Glass fiber
30	Fiberglass Quality	95
31	Unit weight of the product	7912 g/m2
32	Glass Felt of a unit mass	166 g/m2
33	Per unit mass of sheathing	5188 g/m2
34	Per unit mass of asphalt	1188 g/m2
35	Asphalt penetration of glass felt	9.76
36 37	Asphalt penetration of the situation Tear strength-Length	pass 20 N
37	Tear strength-Width	20 N 16 N
39	Flexural property-Length	pass
40	Flexural property-Width	pass
41	Heat resistance	pass



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Venture Enterprise 벤처확인기업

도 특허청

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