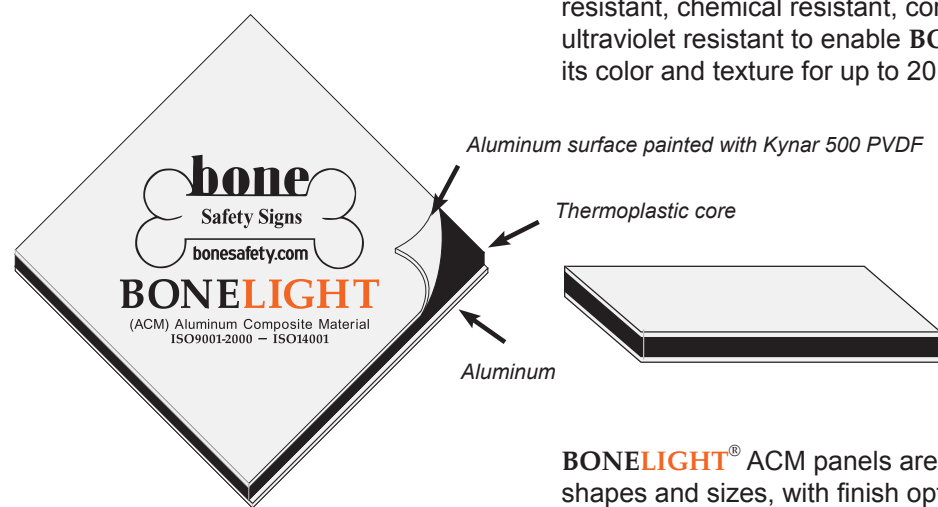


# BONELIGHT<sup>®</sup> ACM Aluminum Composite Material

## BONELIGHT<sup>®</sup> ACM

Bone Safety Signs' **BONELIGHT<sup>®</sup>** Aluminum Composite Material (ACM) is made of two sheets of .021 aluminum bonded to a thermoplastic core. ACM's flat rigid surface and weather resistance insuring long-term work zone performance and durability makes ACM an excellent alternative for lightweight signing. It is **NCHRP350 approved** and **ISO9001-2000 - ISO14001 certified**.

**BONELIGHT<sup>®</sup>** uses Kynar 500 PVDF, a paint manufactured out of polyfluorated resin, formulated with other metal micro-grains for color. Kynar 500 PVDF is weather resistant, chemical resistant, corrosive resistant and ultraviolet resistant to enable **BONELIGHT<sup>®</sup>** to maintain its color and texture for up to 20 years.



BONELIGHT<sup>®</sup> ACM  
NCHRP350 Approved

**BONELIGHT<sup>®</sup>** ACM panels are available in a variety of shapes and sizes, with finish options ranging from blanks to standard or custom signs, laminated with reflective and non reflective sheeting.



# PROPERTIES

## PHYSICAL AND MECHANICAL PROPERTIES

Properties	Unit	Test Value (4mm)	Test Value (3mm)	Test Standard
Aluminum Thickness	mm	0.50	0.25	-
Weight	kg/m <sup>2</sup>	5.5	4.5	ASTM D-792
Tensile Strength	MPa	48	45	ASTM D-638
Yield Strength	MPa	44	43	ASTM D-638
Thermal Expansion (-20~60°C)	10 <sup>-6</sup> /°C	22.5	19.6	ASTM D-696
Temp. for Thermal Deformation	°C	113	106	ASTM D-648
Sound Transmission Coefficient	dB	26	24	ASTM E-413
Bending Strength	MPa	130	62	ASTM C-393
Bending Modules of Elasticity	10 <sup>4</sup> MPa	2.46	1.67	ASTM C-393
Penetrating Resistance	kN	10.5	5.24	ASTM D-732
Shearing Strength	MPa	32.5	23.1	ASTM D-732
180° Peel-off Strength	N/mm	12	7.5	ASTM D-903

## COATING PROPERTIES

Properties	Test Method	Result
Coating Thickness	ISO2360	30 ± 2um
Pencil Hardness	ASTM D-3363-92a	3H ~ 4H
Adhesion		
Dry	ASTM D-3359(Method8)	No Change
Wet	37.8°C,24hrs	
Boiling Water	100°C,20min	
Abrasion Resistance	ASTM D-968-63	No Change
Salt Spray Resistance (100% Salt Fog, 35° C, 3000 Hrs)	ASTM D-B117-90	No Change
Humidity Resistance (100% RH, 35° C, 3000 Hrs)	ASTM D-B2247-94	No Change
Chemical Resistance		
HCL, H <sub>2</sub> SO <sub>4</sub>	ASTM D-1308-87	No Change
Mortar	AAMA 605.2-90	
Detergent	ASTM D-2248-93	
Impact Resistance	ASTM D2794	No Change