

AICA

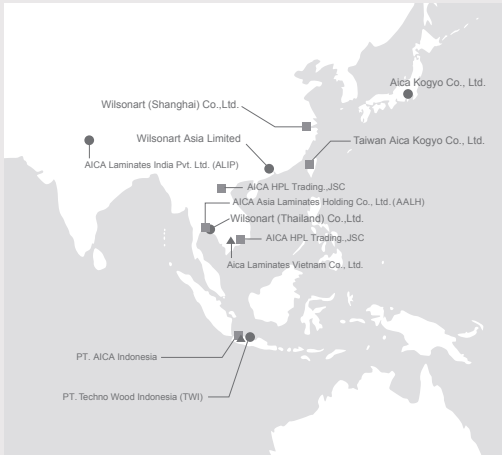
50  
YEAR  
ANNIVERSARY

CERARL  
TOUGHTOP

# AICA

AICA's business concept for the 21st century is to open door to new challenges and innovation while strengthening environmental and design orientation. Especially, "environmental orientation" is the brand image of AICA products and contributes to building a sustainable society through offering environmentally and health friendly products.

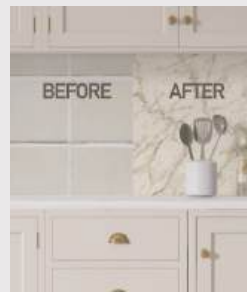
## AICA Global Network



- AICA Group
- AICA Laminate J<sup>3</sup> Sales Network
- ▲ AICA Laminate J<sup>3</sup> Factory

## First CERARL Launched in Japan

1989



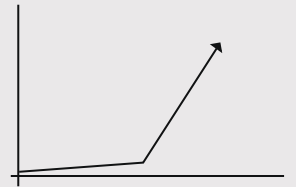
## CERARL Launch in Indonesia

2020



1996

## CERARL Sales Soared

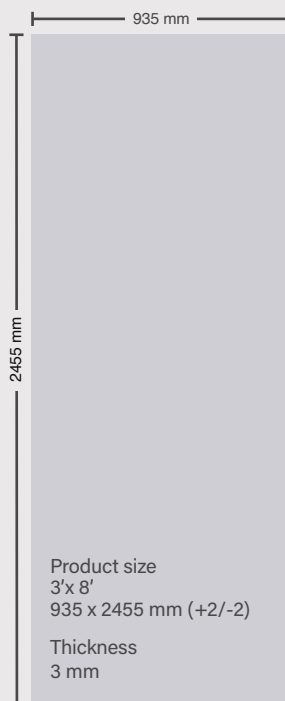


2022

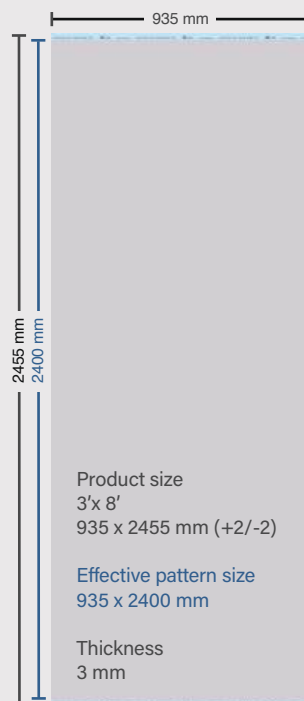
## Exclusive ToughTop Launch in Indonesia



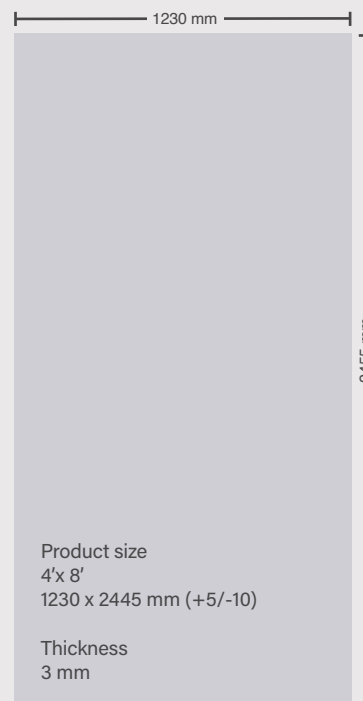
### CERARL



### CERARL +Wonder Series



### ToughTop



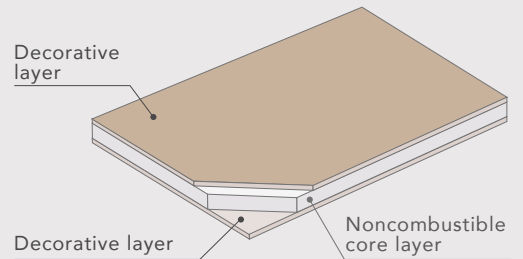
\*ToughTop and CERARL have different colors and textures due to differences in the raw materials and manufacturing methods used.

# CERARL

CERARL fire retardant decorative panels are made with melamine resin impregnated decorative layers and a specialized noncombustible core, formed by a high-temperature, high pressure press.

Offering superb rigidity and strength, they're favoured in public buildings as well as in the house.

## COMPOSITION OF CERARL



| Standard Size                    | Thickness |
|----------------------------------|-----------|
| 3'x 8' <-> 935 x 2455 mm (+2/-2) | 3 mm      |

CERARL's Fire retardant property or performance are widely recognized internationally

China



Taiwan



Korea



Singapore



Japan



**SIAA**  
ISO22196  
Antibacterial  
Inorganic antibacterial agent  
Integrated  
Surface Layer  
ID0123211X0002X

The SIAA brand mark is borne on products that are under quality control and information disclosure by the guidelines of the Society of International sustaining growth for Antimicrobial Articles based on the results evaluated by ISO22196 method.



## BENEFITS



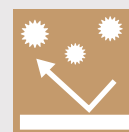
**Durable**



**Easy to Clean**



**Heat and Humidity Resistant**



**Anti Bacteria**



**Easy to Install**

50 YEAR ANNIVERSARY

# CERARL

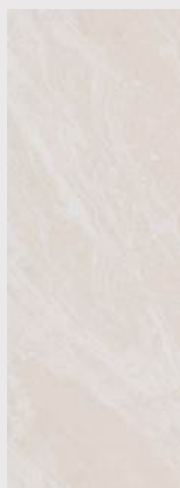
PT AICA 50<sup>th</sup> Anniversary New Edition



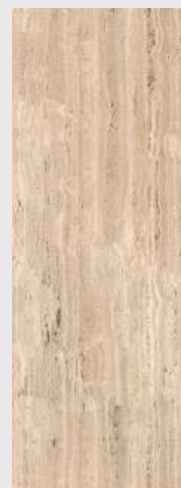
XKAF 14194 ZMN



XKAF 14195 ZMN



XKAF 14196 ZMN



XKAF 14197 ZMN



XKAF 14198 ZMN



[NEW] XKAF 14197 ZMN



[NEW] XKAF 14195 ZMN



[NEW] XKAF 14196 ZMN



[NEW] XKAF 14194 ZMN



[NEW] XKAF 14198 ZMN





[NEW] XKAF 14172 ZMN



[NEW] WAF 14719 ZMN



[NEW] WAF 14720 ZMN



CERARL



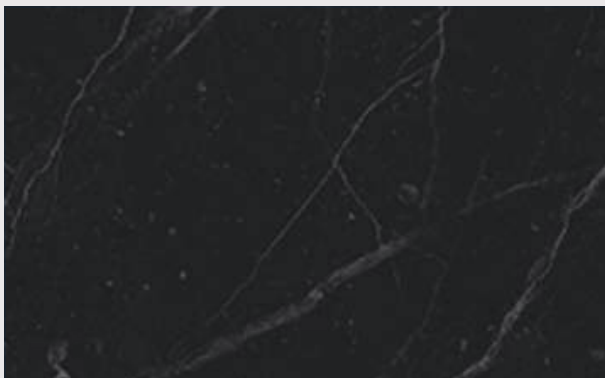
XKAF 14146 ZMN



XKAF 14161 ZMN



XKAF 14062 ZGN



XKAF 14146 ZMN



XKAF 14103 ZMN





[NEW] XKAF 14159 ZMN



[NEW] XKAF 14165 ZMN



[NEW] XKAF 14166 ZMN



[NEW] XKAF 14157 ZMN



[NEW] XKAF 14159 ZMN





# CERARL



[NEW] WAF 14717 ZMN



XKAF 14144 ZGN



XKAF 14038 ZMN



XKAF 14160 ZMN



# CERARL



XKAF 14041 ZMN



XKAF 14145 ZMN



XKAF 14040 ZMN



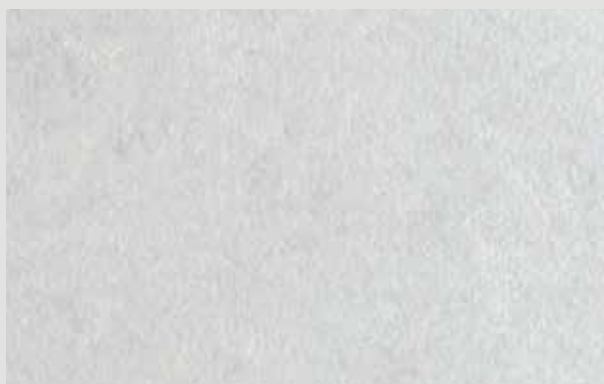
XKAF 14145 ZGN



# CERARL



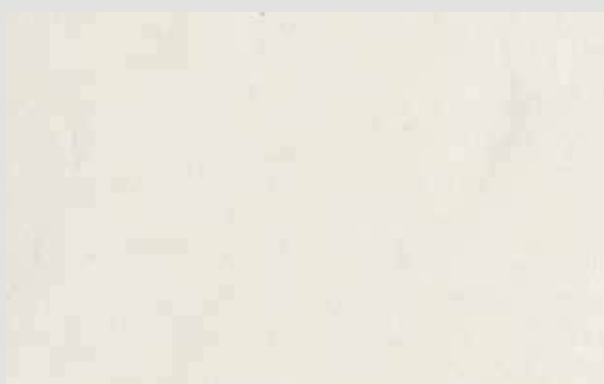
XKAF 1996 ZMN



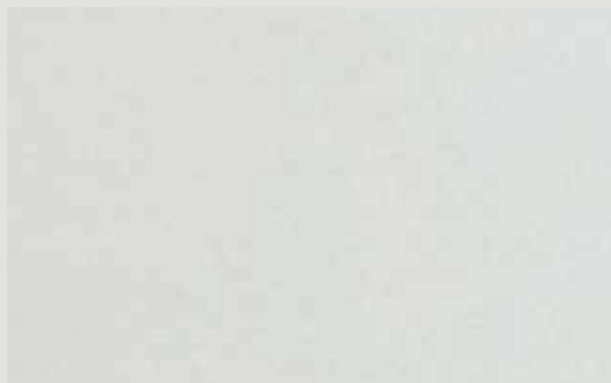
XKAF 1873 ZMN



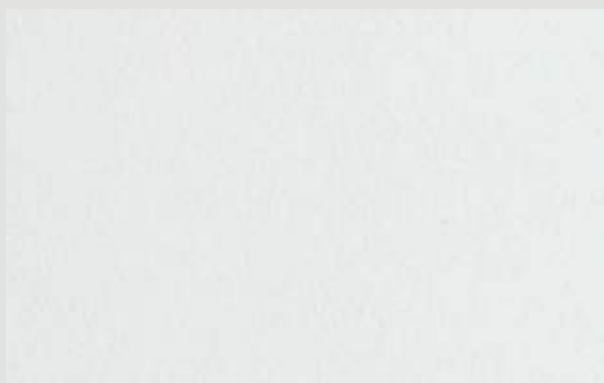
XKAF 1806 ZMN



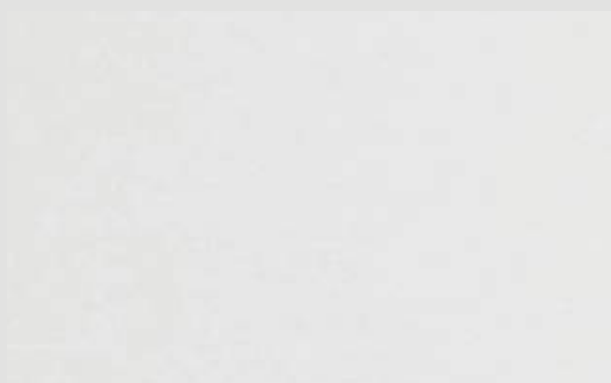
XKAF 1983 ZMN



XKAF 1966 ZMN



XKKF 6200 ZMN



XKKF 6000 ZMN



XKAF 14066 ZMN



# CERARL



XKAF 14104 ZMN



XKAF 14035 ZMN



XKJF 14015 ZSN98



XKJF 14007 ZSN98



***Combination of  
ToughTop and CERARL  
creates a seamless design.***



**ToughTop**

4' x 8'

**CERARL**



3' x 8'

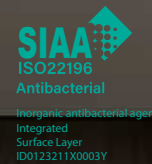
\*ToughTop and CERARL have different colors and textures due to differences in the raw materials and manufacturing methods used.



# ToughTop

## BENEFITS

-  **Abrasion Resistant**
-  **Heat Resistant**
-  **Anti Bacteria**
-  **Easy to Clean**
-  **Durable**
-  **Easy to Install**



The SIAA brand mark is borne on products that are under quality control and information disclosure by the guidelines of the Society of International sustaining growth for Antimicrobial Articles based on the results evaluated by ISO22196 method.

A new solution for interior top surface from AICA Indonesia, combination of luxury and strength. ToughTop is top surface material substitute for natural stone. With a lighter weight, good abrasion resistance, and the best choice of pattern, making ToughTop the main choice in table top materials.

### Standard Size

### Thickness

4'x 8' <-> 1230 x 2455 mm (+5/-10)

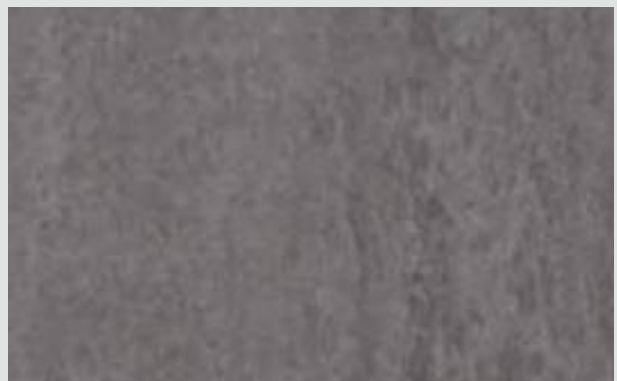
3 mm

Can custom finish to S83 (Super Matte)  
\*refer to AICA LAMINATE Catalog

### MARBLE SERIES



HAK 14158 ZM83



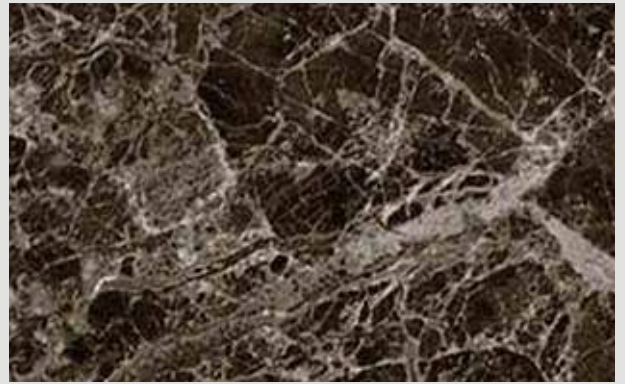
HAK 14150 ZM83



MARBLE SERIES COMBINATION WITH CERARL



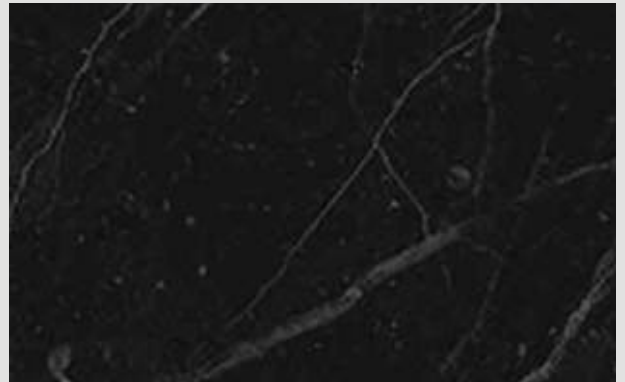
HAK 14161 ZM83



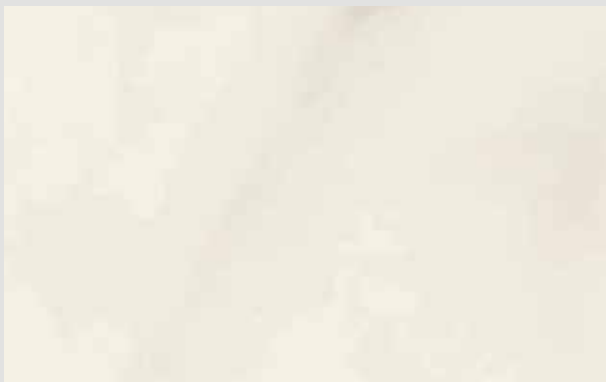
HAK 14040 ZM83



HAK 14144 ZM83



HAK 14146 ZM83



HAK 14038 ZM83



HAK 14157 ZM83



HAK 14159 ZM83



HAK 14172 ZM83



# Combine CERARL and ToughTop for a seamless design



XKAF 14161 ZMN  
HAK 14161 ZM83



XKAF 14144 ZMN  
HAK 14144 ZM83



XKAF 14038 ZMN  
HAK 14038 ZM83



XKAF 14172 ZMN  
HAK 14172 ZM83



XKAF 14146 ZMN  
HAK 14146 ZM83



XKAF 14157 ZMN  
HAK 14157 ZM83



XKAF 14159 ZMN  
HAK 14159 ZM83



XKAF 141040 ZMN  
HAK 14040 ZM83

\*ToughTop and CERARL have different colors and textures due to differences in the raw materials and manufacturing methods used.

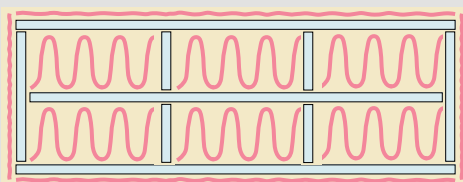


# CERARL Installation



Download complete CERARL installation manual at [aica.co.id/product/cerarl/](http://aica.co.id/product/cerarl/)

CERARL fire retardant & decorative panels are best applied on gypsum and direct on existing tile. CERARL must be applied on even surfaces, for uneven surfaces please make adjustment with sealant.



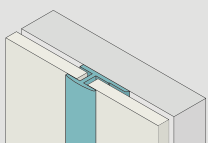
Back of CERARL

- AICA Eco-Eco Bond Modified Silicone Resin SE-8
- Double Coated Foam Tape



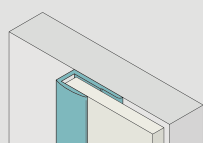
## Recommended Accessories

Joiner - "I" Joint Type H



L: 3,050mm

Joiner - Terminal Joint Type U



L: 3,050mm

Available Color: Dark Brown, Snow White, Ivory, Silver

Thickness : 1 mm  
Width : 13 mm  
Length : 3.050 mm/piece



# ToughTop Installation

**1** ToughTop can be cut with 60 blades circular saw



**2** Apply sealant SE-8, and be sure to apply it around the outer part



**3** Peel off release paper of double foam tape



**5** Install ToughTop horizontally



**6** Finishing for ToughTop edging



Back of ToughTop



AICA Eco-Eco Bond Modified Silicone Resin SE-8  
 Double Coated Foam Tape

## Finishing methods for ToughTop edging (optional)



Trimmed



Rounded



Miter

### Safety Precautions

Please observe the following points to use the product safely.

1. Put protective gloves on when carry / treat the product.
2. Wear protective goggles and a dust mask during work.
3. Please prevent a dust explosion when collect dust which made by processing.
4. As for the panel with adhesive, please do not let an adhesion side come in contact with skin.
5. Handling: avoid direct sunlight, avoid wetting, handle with care.

### Emergency Care

- If dust adheres to your skin or it is involved in your eyes, nose or mouth, immediately wash it fully off with water. If you feel something strange in yourself, receive medical treatment immediately.
- On the occasion of fire, please extinguish a fire with water, fog, a bubble, and a chemical fire extinguishing agent.

# Table of physical properties of CERARL

| Test Items                                   |                            | XKKF6000ZMN<br>(Solid color) | XKAF1996ZMN<br>(Patterned) | Test method   |   |
|--|----------------------------|------------------------------|----------------------------|---------------|---|
| Thickness (mm)                               |                            | 3,0                          | 3,0                        | JIS K 6902    | Mean value of measurements of four points on the circumference obtained by a micrometer with 1/100 mm resolution.   |
| Bulk specific gravity                        |                            | 1,77                         | 1,76                       | In-house test | Measure mass in water and mass at the time of water absorption and compute based on a specified calculation formula.  |
| Resistance to heat                           |                            | Rating 5                     | Rating 5                   | JIS K 6902    | Place a flat-bottomed pan containing 180°C vegetable oil on the test specimen and let it stand for 20 minutes.  |
| Resistance to hot water                      |                            | Rating 5                     | Rating 5                   | JIS K 6902    | Spill a small amount of boiling water on the test specimen, place a flat-bottomed pan containing boiling water on the test piece and let it stand for 20 minutes.   |
| Resistance to abrasion                       | Abrasion value (rotations) | 643                          | 50                         | JIS K 6902    | Examine abrasion conditions of color and pattern every 25 rotations by a Taber abraser with the load of each abrasive wheel adjusted to 5.20±0.2N. Endpoint: When the color of facial-powder paper first disappears for solid color item. When 50% of printed patters disappear for patterned item. |
| Dimensional stability (elevated temperature) | Longitudinal direction (%) | 0,22                         | 0,21                       | JIS K 6902    | Find the rate of change at the time of contraction when dried at 70°C for 24 hours and at the time of expansion when letting it stand at 40°C 90% RH for 96 hours.  |
|  | Lateral direction (%)      | 0,24                         | 0,25                       |               |   |
| Resistance to impact (large-diameter ball)   | Falling ball height (cm)   | 70                           | 70                         | In-house test | Fix a 230±5 mm test specimen to a support stand, allow a 325±5 g steel ball to fall, and check the surface for any sign of cracking.  |
|  | Cracking on the surface    | None                         | None                       |               |   |
| Resistance to staining*                      |                            | (Slight change)<br>14        | (Slight change)<br>14      | JIS K 6902    | Add the staining agent stipulated under this table dropwise to the test specimen surface or allow it to adhere to the specimen surface, cover with a watch glass, and let it stand for 16 to 24 hours. Then wash with water/alcohol and check the surface for any sign of change.                   |
| Lightfastness                                | ΔE (48 hrs)                | 1,5                          | 1,6                        | JIS K 6902    | Expose the test specimen by UV carbon fade meter and express changes in color tone by L*a*b*.   |
|  | Appearance after test      | Rating 3                     | Rating 4                   |               |   |
| Elastic modulus (Horizontal/Vertical) (GPa)  |                            | 15.0/12.7                    | 15.4/13.7                  | JIS K 7171    | Compute from the tilted portion of the breaking/deflection curve by the specified calculation formula.  |
| Bending strength (Horizontal/Vertical) (MPa) |                            | 77.0/56.8                    | 79.7/61.2                  | JIS K 7171    | Apply load to test specimen at a loading rate of 1 mm/min with the 3-point bending method by the material test machine and compute from the breaking load.  |

\* The data in the table are not guaranteed values but reference values.

Staining agent for resistance to staining

1. Tea, 2. Coffee, 3. Milk, 4. 1% iodine alcoholic solution, 5. Vinegar, 6. 10% citric acid aqueous solution, 7. kerosene, 8. Acetone (for industrial use), 9. Olive oil, 10. 10% aqueous ammonia, 11. Any of red, black and blue crayon, 12. Shoe polish black, 13. Dye food dye red no.102 0.01% liquid, 14. Ink for clerical work blue black, 17. Acid sodium sulfite saturated aqueous solution, 18. Soy sauce  
\*Numbers 15 and 16 are vacant.

Description on the rating for resistance to heat and resistance to hot water

Rating 5: No visible change; Rating 4: Slight change of gloss and/or color, only visible at certain viewing angles; Rating 3: Moderate change of gloss and/or color; Rating 2: Marked change of gloss and/or color; Rating 1: Surface damage and/or blistering

Description on the rating for Lightfastness

Rating 5: No change in color or surface finish; Rating 4: Slight change in color or surface finish visible only at certain viewing angles and directions; Rating 3: Moderate change in color or surface finish that is just visible at all viewing angles and directions; Rating 2: Marked change in color or surface finish that is very evident at all viewing angles and directions; Rating 1: Surface blistering and/or cracking.

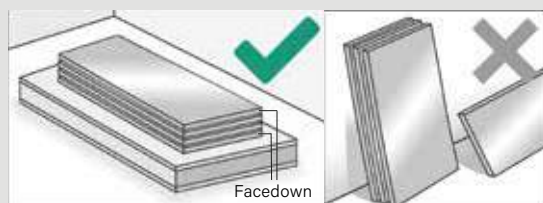
\*This table of physical properties of AICA CERARL is English translated version of the Japanese language original.

# Table of physical properties of ToughTop

| Item                | Standard                           | Tough Top                              | Marble                                 | Granite                                | Ceramic                                | Solid Surface                          | Remark   |
|---------------------|------------------------------------|--|--|--|--|--|--|
| Thickness           | -                                  | 3 mm                                   | 16 mm                                  | 20 mm                                  | 10 mm                                  | 12 mm                                  | -  |
| Weight/Area         | -                                  | 4.16 Kg/m <sup>2</sup>                 | 46.71 Kg/m <sup>2</sup>                | 59.16 Kg/m <sup>2</sup>                | 20 Kg/m <sup>2</sup>                   | 22.39 Kg/m <sup>2</sup>                | -  |
| Heat Resistance     | JIS K 6902 Resistance to Hot Water | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | Spill a small amount of boiling water on the test specimen, place a flat-bottomed pan containing boiling water on the test piece and let it stand for 20 minutes.                                    |
|                     | JIS K 6902 Resistance to Heat      | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | Place a flat-bottomed pan containing 180°C vegetable oil on the test specimen and let it stand for 20 minutes  |
|                     | In-house Test Hot Ingot            | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 5</b><br>No Change of Surface | <b>Grade 1</b><br>After 5-10 min, Broken/damaged at temp>200 C<br>Place the hot plate on a surface with a temperature of up to 200°C for 10 minutes and then check the changes/cracks on the surface |
| Abrasion Resistance | JIS K 6902 Resistance to Abrasion  | 0.08 g                                 | 0.38 g                                 | 0.10 g                                 | 0.43 g                                 | 0.73 g                                 | Using the Taber abraser with a load of 500 gr and sandpaper #180 for 500 cycles, then check the final weight against the initial weight  |
| Impact Resistance   | In-house Test                      | 80 cm                                  | 40 cm                                  | 40 cm                                  | 10 cm                                  | 50 cm                                  | Drop the ball on the surface of the specimen with a weight: 532.8 g and diameter: 50.78 mm at a certain height and then check for cracks on the surface  |

*\*The data in the table are not guaranteed values but reference values*

## Handling and Storage



- Please stack flat.
- Please avoid to keep it outside, in direct sunlight and in high humidity.
- When you store ToughTop in a pile, please put ToughTop with masking film protection facing down.

