



# Surface Engineering & Coating Consultant

A Reliable Paint Testing & Certification Laboratory

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TC-9607

## Test Report

To,  
M/s. Keybond Industries LLP  
17, Super house, Amar Industrial Estate  
CST Road Kalina Santacruz (east)  
Mumbai - 400098 India.

05/01/2022

Ref. No. letter dated: 30/12/2021  
Sample Received: 30/12/2021  
Testing Date: 02/12/2021  
ULR: TC960721000000048

**Project No: SECC-41/2021-2022**

**Product Name: - SUPERBOND ACP**

**Subject: - Test Report for the testing of superbond Aluminum Composite Panel.**

Dear Sir,

Find herewith the test report for the testing of superbond Aluminum Composite Panel sample as per test methods. The main results are given in table below and further details along with photographs are enclosed.

Results:

Sr. No.	Test Method, Condition and Test methods	Sample ID	Results
<b>A) Materials Physical properties of Aluminium Composite Panel</b>			
1	Over all thickness of ACP Measured Temperature:23±2 °C Relative Humidity 50±5%	01	3.55 mm
2	Aluminum thickness Measured Temperature:23±2 °C Relative Humidity 50±5%	ST-01	0.38 mm
3	ACP Panels weight Measured Temperature:23±2 °C Relative Humidity 50±5%	01	5.8 kg/m <sup>2</sup>
<b>B) Mechanical properties of Aluminium Composite Panel</b>			
1	Peel test *ASTM D 903 Temp. 23±2°C RH 50±5%	PL-01	7.576 N/mm

<b>C) Mechanical properties of Properties of Aluminium Skin/ Coil</b>			
1	Tensile strength *ASTM E8 Temperature:23±2 °C Relative Humidity 50±5%	01 02	134 MPa 138 MPa
2	% Elongation *ASTM E8 Temperature:23±2 °C Relative Humidity 50±5%	01 02	5.05 % 3.52 %
<b>D) Properties Of Paint Finish (Front Side Only)</b>			
1.	Coating Type Chemical method by Drop 50% Nitric acid (HNO <sub>3</sub> ) 50% Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ) 30% calcium hydroxide (Ca (OH) <sub>2</sub> ) 5% Hydrochloric acid (HCl) 50% Sodium hydroxide (NaOH) Temperature:23±2 °C Relative Humidity 50±5%	PVDF	Not PVDF
2.	Dry film thickness *ASTM D 7091 or ECCA T1 Temperature:23±2 °C Relative Humidity 50±5%	01	15.42 µm
3.	Specular Gloss *ASTM D 523 or ECA T2 Temperature:23±2 °C Relative Humidity 50±5%	01	46.46 GU
4.	Taber Abrasion Resistance 1000-gram weight, 1000 cycles, Wheel CS-17, *ASTM D 4060 Temperature:23±2 °C Relative Humidity 50±5%	TA-01 TA-02	62 mg 55 mg
5.	Adhesion Test *ASTM D3359 Temperature:23±2 °C Relative Humidity 50±5%	AD-01	5B

\* NABL.



*V. Bari*

Mr. Vishal Bari  
(Technical Manager)

*A. S. Khanna*

Prof. A. S. Khanna  
(Authorized Signatory)

This report contains the results pertain to the test samples submitted to Surface Engineering and Coating Consultant (SECC). This report should only be reproduced in full with the permission of SECC. We do not accept any liability if this report is used for an alternative purpose from which it is intended. No addition, deviation or exclusion from the test methods used were done

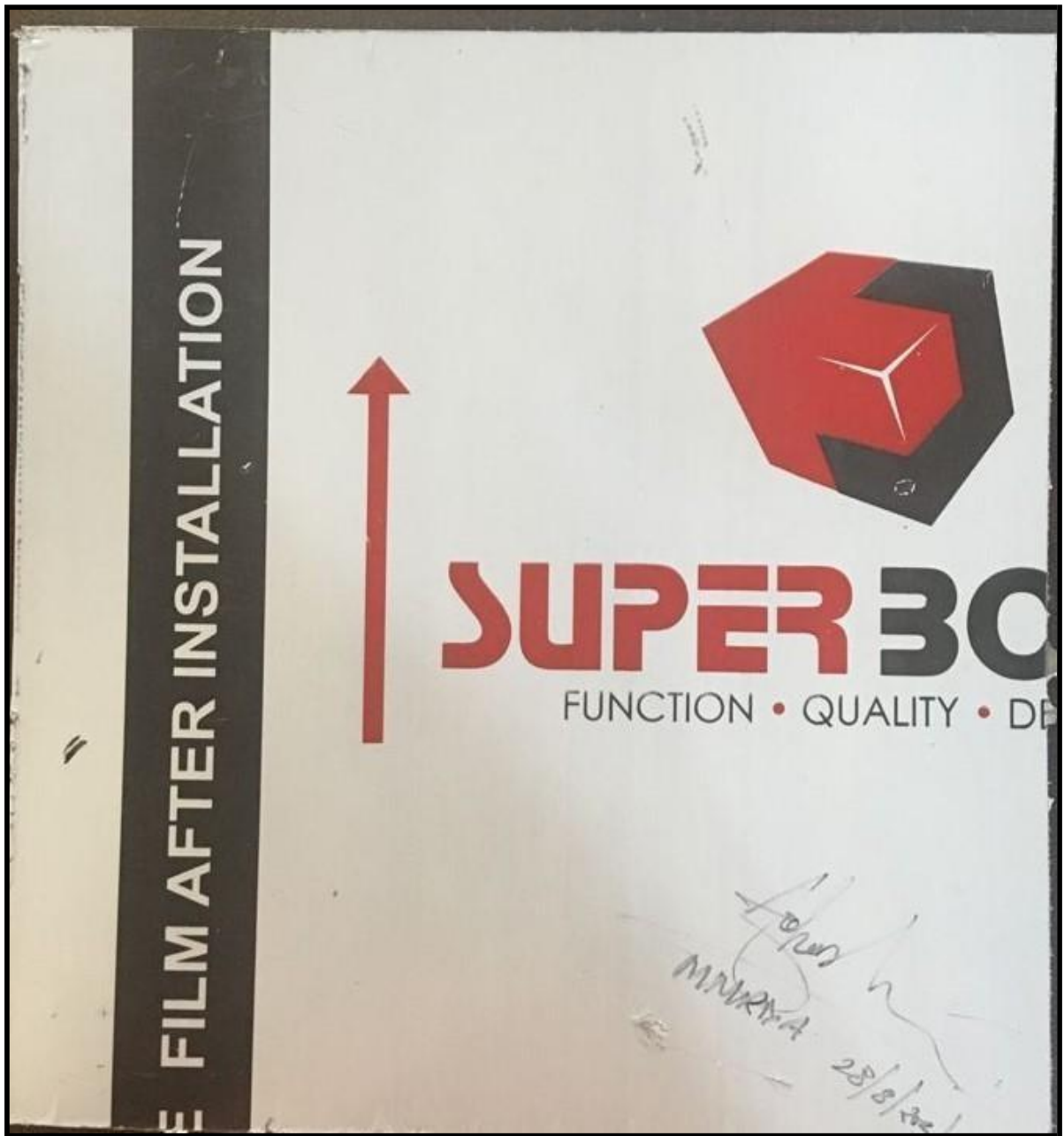


Fig1. Photograph of Received ACP

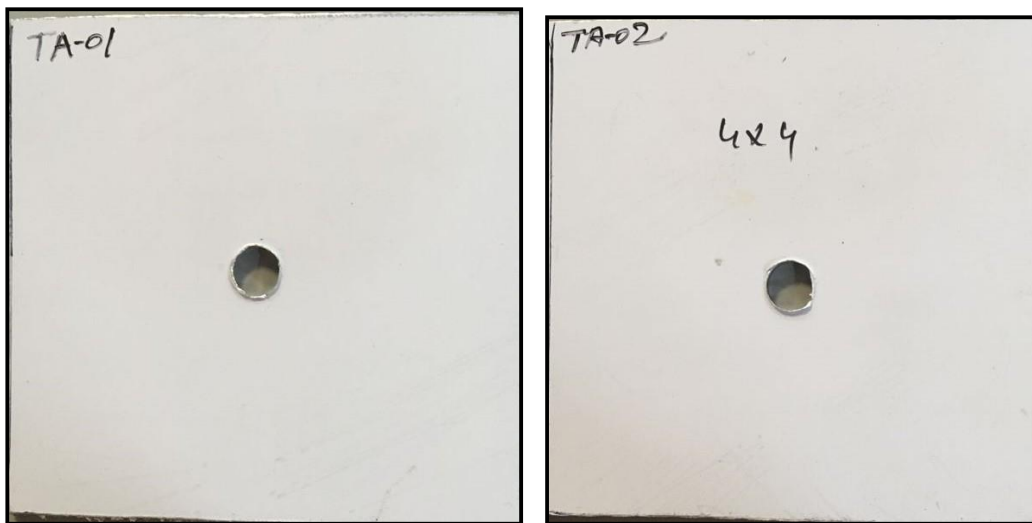
# Surface Engineering & Coating Consultant (SECC)

## Data Sheet for Taber Abraser Test

### (ASTM D4060- 14)

<b>Project No.:</b>	SECC-41/2021-22	<b>Date:</b>	07/09/2021
<b>Temperature:</b>	24.8 °C	<b>Humidity</b>	53.3%
<b>Applied Load:</b>	1 kg	<b>Wheels Types:</b>	CS-17
<b>Test Performed by:</b>	Mr. Rajkumar VK		

Sample ID	Dry Film Thickness, DFT (µm)	Initial Sample Weight, A (gm)	No. of Abrasion Cycles, C	Final Sample Weight, B (gm)	Weight loss A-B, gm
TA-01	15.52	61.118	1000	61.056	0.062
TA-02	15.52	62.702	1000	62.647	0.055



Initial



Tested

Fig2. Photograph of Initials & Tested samples

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## Data Sheet for Cross Hatch Adhesion Test

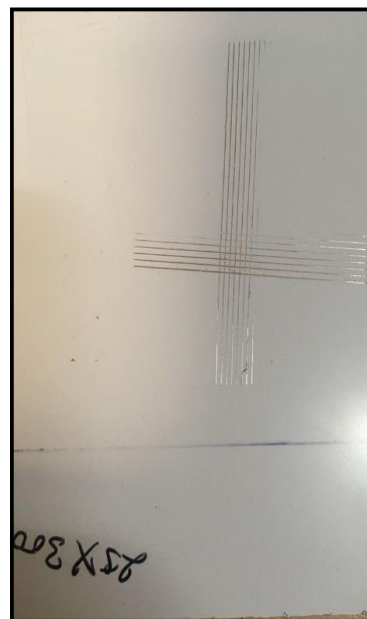
### ASTM D 3359

<b>Project No.:</b>	SECC-41/2021-22	<b>Date:</b>	07/09/2021
<b>Temperature:</b>	24.8 °C	<b>Humidity</b>	53.3%
<b>Coating Name:</b>	PVDF	<b>Test Performed By:</b>	Rajkumar

Sample ID	Dry Film Thickness, DFT $\mu\text{m}$	Cross-cut Adhesion Classification
AD-01	15.42	5B



Initials ACP



Tested ACP

Fig3. Photograph of Initials & Tested sample

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## Data Sheet for Tensile Strength and Elongation

### ASTM E 8

<b>Project No.:</b>	SECC-41/2021-22	<b>Date:</b>	07/09/2021
<b>Sample Type:</b>	24.8 °C	<b>Humidity</b>	53.3%
<b>Test Machine</b>	UTM		
<b>Test Performed By:</b>	Rajkumar VK		

Sample ID	Gage Length (mm)	Gage width (mm)	Thickness (mm)	Tensile Strength (MPa)	%Elongation (%)
01	50.77	15.57	0.38	134 MPa	5.05%
02	50.8	13.00	0.38	138 MPa	3.52%



Fig4. Photograph of Initials & Tested samples

# Surface Engineering & Coating Consultant (SECC)

## Data Sheet for Peel Strength

### ASTM D 903

<b>Project No.:</b>	SECC-41/2021-22	<b>Date:</b>	07/09/2021
<b>Sample Type:</b>	24.8 °C	<b>Humidity</b>	53.3%
<b>Test Machine</b>	UTM		
<b>Test Performed By:</b>	Rajkumar VK		

Sample ID	Gage width (mm)	Thickness (mm)	Peel Strength (N/mm)
PL-1	25.0	4.10	7.576



Fig5. Photograph of Initials & Tested sample

**--End of the Report--**