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#### Introduction

M/s Viva Composite Panel (P) LTD. is one of the leading manufacturers of

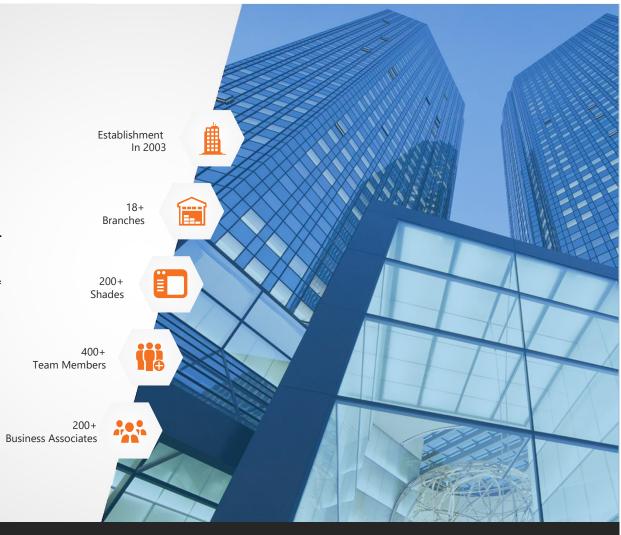
Aluminium composite panel (ACP) in India. Viva now an ISO 9001:2015 & ISO 14001:2015 & "CE" certified company was setup in 2003 at Mumbai in Maharashtra. Our manufacturing facilities are located at Umbergaon in Gujarat that features a perfect harmony of proficient workers and world class machines.

The manufacturing facilities have a state-of-the-art Korean Machines and have an integrated infrastructure and a talented pool of professionals operate them. The plant is equipped with all safety measures as well as solar power to ensure uninterrupted production. A state of test lab is also operational. The in-house testing labs ensure highest quality & precise specification.

We are equipped with 6 production lines with production Capacity of 7 million sq. Mt. per annum and 2 Lakh Sq ft. per day at our plant, located at Umbergoan (Gujarat).

We have 18 Company owned Depos in all the prime cities of India and more than 500 plus dealer's network across India, strengthening us to make our supplies reach in almost most of the regions. Our aim is to provide the best quality materials with excellent service and hospitality. We promise to reach new heights of excellence.

We're also equipped with the best in class Color Coating Line (CCL) which helps us to develop customized shades and cater the 200+ requirement of our clients who needs a special shade for their brand identity and eliminates the chance of peel-off. Only lead-free paint is used to negate health hazards.





### **CMD's Message**





#### Mr. Prakash Jain

Chairman & Managing Director

"At VIVA," we always strive to be the most innovative organization providing peak level professional services and superior quality products which are developed through continuous R&D, ensuing to cater to the taste and preferences of the ultimate consumer



### **Mission & Vision**



#### Vision

To be the most admired and respected brand in our field of operation. We aim to create an environment where customers love to visit and people love to work



#### Mission

We fulfill our vision by delivering consistently superior performance. We will be of the service to the community in which we work and live in. We will be customer centric, creating a "WOW" experience



### **Our Values**









**Team Work** 



**Customer Centricity** 



**Passionate Ownership** 



Excellence









**WE ARE ALSO LOVED IN** 

1. UAE

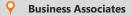
3. Malaysia

5. East Africa

2. Nepal 4. Sri Lanka

6. Indonesia

Warehouses





#### **Clientele List**

































































# Why VIVA®?







# **Our Products**





**Natural Stone** 



Classic Sparkle



Premium Wooden, Marble, Texture



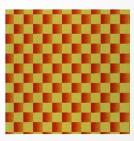
Glitter & Natural Rustic



Fire Retardant Panels



HPL Series 6MM



Decorative Partition Panels



Bus Body Panels



### **VIVA®** Advantages & Technical Features



#### Advantages

- 100 % maintenance free
- Saves construction time and cost at the last stages of Construction
- Provides sound insulation and resistant to weathering effects
- Excellent UV characteristics

- Hi-tech appeal
- Long lasting
- Superior flatness

#### **Technical Features**

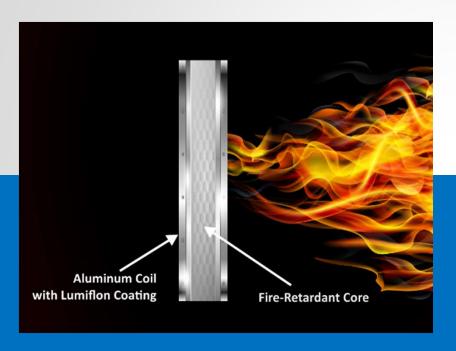
- Cuts out the labor with its easy fitting & faster
- Provides thermal insulation and dissipate heat from Sun
- Reduce temperature variation inside the building

- No affected by natural gases
- Keeps structure dry



#### **Fire Retardant Panel**





#### **VIVA Fire Retardant Grade:**

VIVA FR Grade B1 Panel is an Aluminium composite material (  $\mbox{ACM}$  ) for the Construction Industries

Its Composed of Core Material & Aluminium Skin with the Fluorocarbon Finish the Core Material contents a Non Combustible Mineral & small content of Thermoplastics, which ensure high performance of fire safety of this material

#### **Technical Features:**

- Provides sound insulation and resistant to weathering effects
- Resistant to breakage
- Provides thermal insulation & dissipate heat from Sun
- Reduce temperature variation inside the building
- Design flexibility

- Not affected by natural gases.
- Keeps structure dry
- Better salt water corrosion resistance
- No polishing is required
- Fire safety and no toxic gases

### **Natural Stone Series 6MM**











Fixing Details					
Description	Specification				
Aluminium Tube ( Black Power Coated )	25X38X1.6mm				
<b>Aluminium Angle</b> ( Cleat )	19X19X2mm				
<b>Screw</b> ( Powder Coated )	SS 25" ( Star Headed )				



### **HPCL SERIES 6MM**





Fixing Details					
Description	Specification				
Aluminium Tube ( Black Power Coated )	25X38X1.6mm				
Aluminium Angle ( Cleat )	19X19X2mm				
<b>Screw</b> ( Powder Coated )	SS 25" ( Star Headed )				



# **Applications of ACP**





#### **Construction & Architectural Panels**

- Exterior Wall Cladding / Façade for Buildings
- Column & Pillar Wraps
- Other Roofing Applications
- Canopies
- Ceilings
- Transport Industries (Marine, Aviation, Buses)

#### **Signage Industry**

- Flat Digital Printing
- Advertisement Boards
- Light Boxes
- Shop Fronts

- Corporate Identities
- Petrol Stations
- Sign Boards
- Interior Cladding



### **Manufacturing & Production Capability**





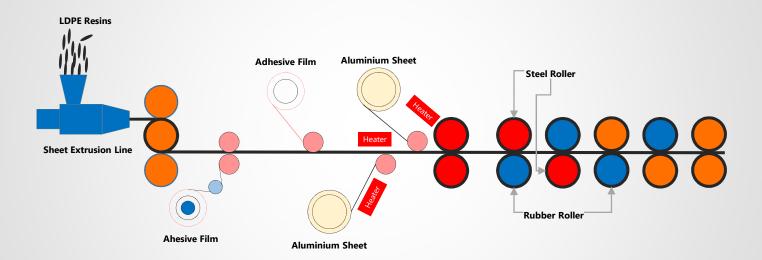


- Viva has a huge variety of lines with 5 production units with Two Double Extruder & One Single Extruder, separately for different products ( Like Viva 7 Star, FR Grade B1,A1 A2 & A2 Plus Panels, Viva-801 & Decorative Partition Panels. )
- Viva enhanced the total production capacity of 7 Million Sq. Mtr. per Annum



# **Process Layout**







### **Quality Assurance**



Viva Raw Materials are sourced from World's Best Suppliers

giving our product the edge to become a **Trusted & Quality Supplier** of aluminum composite material for making the best product.













### **In house Laboratory Testing**





#### **Testing Capabilities:**

- Dry Film Thickness Test
- Specular Gloss
- Tensile Strength
- Elongation
- Peel Off Strength
- Cross Hatch Test
- Coating Adhesion Dry & Wet

- Boiling Water Resistant
- Impact Tester
- Color Matching Cabinet
- Melt Flow Index
- Ash Content
- Specific Gravity
- Moisture Analyzer
- Chemical Test



### **Our Product Certifications & Membership**

















# **Our Certifications**





**Exova Certification EN-13501** 



**Exova Certification EN-13501** 



SGS TESTREPORT-5



**SGS TESTREPORT-5** 



### What Is PVDF Coating?



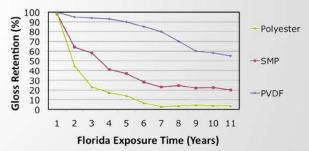
#### **Kynar:**

Kynar 500® is not a finished paint. It is a trade name for PVDF (Polyvinylidene Fluoride) resin, as is Hylar 5000®. PVDF resin is the raw material used by licensed formulators to manufacture PVDF based coatings

#### **PVDF**:

Polyvinylidene fluoride, or polyvinylidene difluoride, ( PVDF ) is a highly non-reactive thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride.PVDF is a specialty plastic used in applications requiring the highest purity, as well as resistance to solvents, acids and bases

# Gloss Retention: PVDF vs Other Coatings







### **Aluminium Skin**



Chemical composition								
Alloy (%)	AA 1050	AA 1070	AA 1100	AA 1200	AA 3003	AA 3103	AA 3105	AA 8011
Fe	0.40	0.25	0.95	1.00	0.70	0.70	0.70	0.60 - 1.00
Si	0.25	0.20	(Fe + Si)	(Fe + Si)	0.60	0.50	0.60	0.50 - 0.90
Mg	0.05	0.03	-	-	-	0.30	0.20 - 0.80	0.05
Mn	0.05	0.03	0.05	0.05	1.00 - 1.50	0.90 - 1.50	0.30 - 0.80	0.20
Cu	0.05	0.04	0.05 - 0.20	0.05	0.05 - 0.20	0.10	0.30	0.10
Zn	0.05	0.04	0.10	0.10	0.10	0.20	0.25	0.20
Ti	0.03	0.03	-	0.05	0.1(Ti + Zn)	0.1(Ti + Zn)	0.10	0.08
Cr	-	-	-	-		0.10	0.10	0.05
Each (Others)	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.05
Total (Others)	-	-	0.15	0.125	0.15	0.15	0.15	0.15
Al	99.50	99.70	99	99	Remainder	Remainder	Remainder	Remainder
Single number indicates maximum content								

Alloy (AA)	Temp.	Elongation %	Min Max	UTS
1100	H18	3-4%	125	150
3003	H18	4-5 %	170	190
3105	H16	3%	170	210



# LDPE – (Low Density Poly Ethylene)



Typical Material Specification								
Property		Standard	Unit	PE 80	PE 100	PP - R		
Density		DIN 53479 ISO 1183	g/cm³	0.95	0.96	0.91		
Metl Index MFR190/5 MFR 190/21.6 MFR 230/5	Code T Code V Code V	ISO 1133	9/10 min	ca.043 Ca.10	0.45 6.6	0.50 - 1.25 – 1.5		
Tensile Modulus Short – Time Long - Time		ISO 178	N/mm²	1.000 170	1200 170	750 160		
Stress at yield		DIN 53495	N/mm²	23	25	26		
Tensile Strength		DIN 53495	N/mm²	32	38	15		
Elongation at break		DIN 53495	%	>600	>600	>50		
Ball indentation Hardness		ISO 2039	N/mm²	42	46	45		
Coefficient of linear thermal expansion		DIN 53752	1/°C	1.8 x 10-4	1.8 x 10-4	1.6 x 10-4		
Color		-	-	Black Yellow	Black Yellow	Grey		



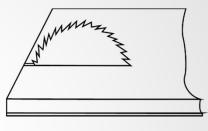


### **Fabrication Technique of Viva Panels**

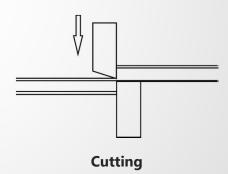


#### **Cutting**

For cutting a carbide tip saw should be used. The other shearing tools may tilt the edges by 1-1.5 degrees









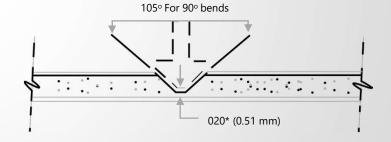
### **Fabrication Technique**



#### **Jointing**

- For jointing a circular saw should be obtained with specially designed tooth as shown having 0.8mm width at the bottom
- For 90 degree angle the saw tooth should be 105 degrees
- Groove should remove the back Aluminium and some LDPE core leaving about 0.5mm thickness







### **Fabrication Technique**



#### **Bending:**

Viva Panels can be bent by using three roller bending machine or single press bending machine

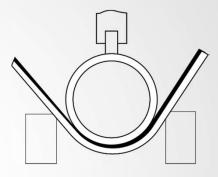
Bending radius for press is 40-55mm and for three roller bending is 200-300mm

Ideal mold width in single press can be calculated by n = (2\*t) + roll radius + foil thickness + 15mm

Where t is panel thickness

Ideal mold width in single press can be calculated

n = (2\*t) + roll radius + foil thickness + 15mm



**Bending** 



**Roll Bending** 



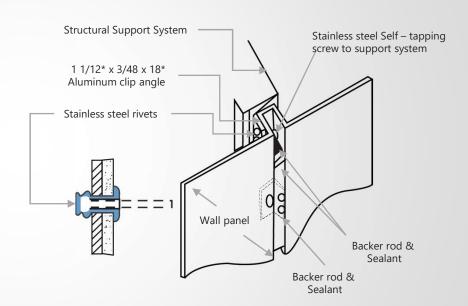
### **Installation Technique**



#### **Thermal Expansion:**

Viva panels have a thermal expansion of 2.36x105mm / mm / Oc which means for 4mm panel the distance between two should be 16mm as at 38oC both sides expansion would be 11mm

For keeping this joint intact we should cover it with a good silicon sealant





#### **Viva Green Panel**



VIVA ACP is a fully recyclable product & allows its customer to gain MR credits for LEED Certification

More credits can be sort by suppliers in all regions within 500 Km's





#### **Viva Equipped with Solar Power**

- Viva Composite Panel (P) Ltd is the first ACP Manufacturing unit in India who has the 200 KW Solar Power facility for Continuous Production
- Viva is the First ACP Company to Save the Environment & Making the Ecofriendly Product



# **Viva Colour Coating Line**











#### **Corporate Office Mumbai India**

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