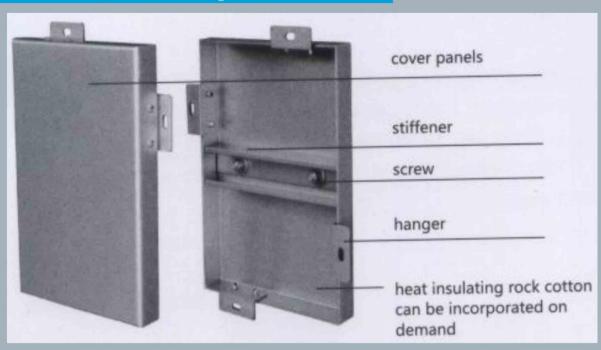
code: 119-1



PVDF painting Aluminum Solid Panel



Aluminum solid panel is adopted high quality aluminum alloy materials from global well-known suppliers. Advanced CNC bending technology to ensure the panel can be formed in the processed without deformation, the superior performance against external forces during installation. Fluorocarbon spray coating equipment used by PVDF coating (PPG, AKZO or Becker) to ensure the surface of uniform color, anti-ultraviolet radiation, anti-oxidation, super corrosion resistance, impact resistance, chemical resistance and super weather resistance.

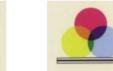
Characteristics of PVDF Aluminum panel



1.Light weight, good Rigidity, high strength



2.Excellent weathering properties and UV resistance Excellent acid and alkali



Various color options elegant effect



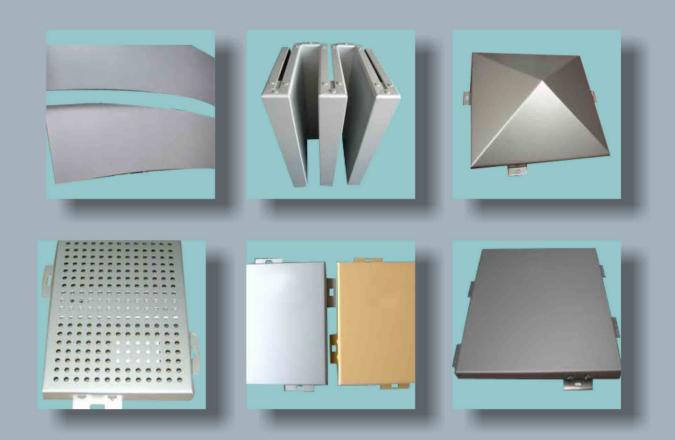
4.Easy clean & maintain



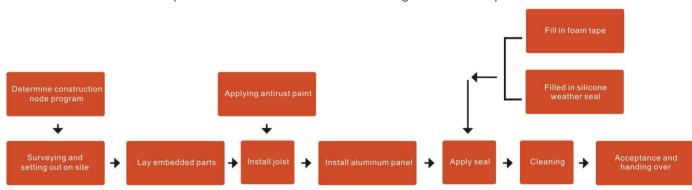
5.Easy & fast installation

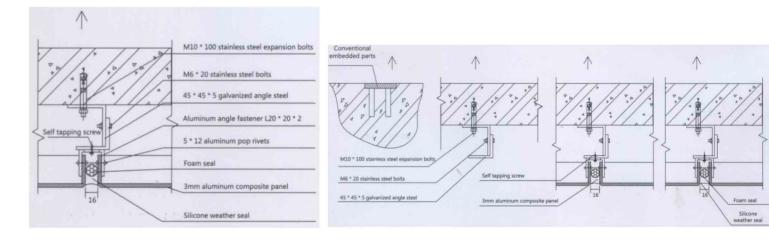
PVDF aluminum panel applications

Building walls and column balconies, partitions, package decoration, interior decoration, adverting signs, cars, furniture, stands, instrument housings, instrument panels.



Conventional installation process of the curtain wall with single aluminum panels on site:





PVDF roller-coating Aluminum Sheet

Max thickness for coating sheet is just 1.5mm but now with advanced technology, coating sheet thickness is from 1.0mm to 4.0mm, and comparing with traditional powder coating aluminum solid panel, the roller-coating aluminum sheet has over-advantage as following:

A. No color difference D. Easy to clean B. Perfect flatness
E. Nice wearability

C. Smooth surface F. Uniform coating

| | Coating | Painting | | |
|--|---|---|--|--|
| Color Difference | A. The temperature difference is very small because of the height of the toaster is just 30cm. B. The temperature is fixed in one point in temperature curve when bake the surface in parallel. C. Coating in parallel. | A. The temperature difference is very big because of 150cm height of the toaster. B. The temperature is not fixed but change slightly when bake in vertical. C. Painting when the product is finished, but vertical surface should be manual painted. | | |
| | Color difference not existed | Color difference existed | | |
| Flatness | Inner stress of the sheet will be released when it is baked the flatness can be leveled and completed. | Bake when the product is finished and inner stress cannot be released, and flatness cannot be assured. | | |
| | Very flat | Very flat | | |
| Smooth Surface Coating is a kind of pressing br coating, and there is no grain and holes on the surface. | | Painting is a kind of xerography system, and there are many grains and small holes on the surface. | | |
| | Very Smooth | Not Smooth | | |
| Pollution | No pollution oozing because there is on grain and small holes on the surface. | Pollution oozing because there is grain and small holes on the surface. | | |
| | No pollution | Can be polluted | | |
| Cleaning | The coated sheet can be easily cleaned by rain because there is no pollution and surface is very smooth. | Pollution is hardly cleaned years later because there are grains and holes. | | |
| | Easy to be cleaned | Difficult to be cleaned | | |
| Wearability | Coating is made by two times coating and baking, the coating is no grain. | Coating is made by three times painting and baking, the coating is made of grains. | | |
| | Well Wearability | Not good wearability | | |
| thickness strength on the plate is average, and becau | | The coating is not average on the surface because of xerography, the tolerance is about 7μ | | |
| | Thickness is average | Not average | | |

Derformance contrast between KYNAR500 fluorocarbon coating and other polymerize coating

| ALM VIEW | | Kynar500 | Acryic resin | Siliconpolyester | Polyester | Plasticizedsol | Plasticizedsol | Anodising | |
|----------|-----------------------------------|----------|-----------------|------------------|-----------|----------------|----------------|-----------|--|
| | Weathering performance | | | | | | | | |
| | Colour protection | O | A | 0 | X | × | A | A | |
| | Gloss protection | O | A | 0 | × | × | A | A | |
| ŀ | Anti-power resistance | O | A | 0 | × | × | A | _ | |
| | Anti-moist performance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | PI | nysical perforn | nance | | | | |
| i | Friction resistance | 0 | A | A | × | A | 0 | A | |
| | Anti-impact performance | O | A | A | | O | A | _ | |
| | Piabledegree of coating membrance | O | × | × | A | O | 0 | × | |
| | Hardness | A | 0 | 0 | O | A | 0 | 0 | |
| 1 | Anti-scratches | A | 0 | 0 | 0 | A | A | 0 | |
| | | | С | hemical Resis | tance | | | | |
| | Acid alk- resistant degree | 0 | A | A | A | × | A | × | |
| | Anti-oil mark | O | A | 0 | 0 | 0 | A | _ | |
| | Anti-water immersion | O | A | A | A | 0 | A | 0 | |
| | | | | □ F | Perfect | ○ Good | ▲ Okay | × Bad | |

Product specification

Specification of Products

| Product | Alloy | Temper | Thickness | Width | Length | |
|------------------|---------|-------------|------------|------------|-------------------|--|
| | AA 1050 | All Tempers | 0.18-350MM | 300-1950MM | Up to 8000MM/Coil | |
| | AA 1060 | All Tempers | 0.18-350MM | 300-1950MM | Up to 8000MM/Coil | |
| | AA 1100 | All Tempers | 0.18-350MM | 300-1950MM | Up to 8000MM/Coil | |
| | AA 3003 | All Tempers | 0.30-350MM | 300-1950MM | Up to 8000MM/Coil | |
| | AA 3004 | All Tempers | 0.30-350MM | 300-1560MM | Up to 8000MM/Coil | |
| | AA 3005 | All Tempers | 0.30-350MM | 300-1560MM | Up to 8000MM/Coil | |
| | AA 3104 | All Tempers | 0.30-350MM | 300-1560MM | Up to 8000MM/Coil | |
| Plate&Coil | AA 3105 | All Tempers | 0.30-350MM | 300-1560MM | Up to 8000MM/Coil | |
| | AA 5005 | All Tempers | 0.30-350MM | 300-1560MM | Up to 8000MM/Coil | |
| | AA 5052 | All Tempers | 0.30-350MM | 300-1560MM | Up to 8000MM/Coil | |
| | AA 5083 | All Tempers | 3.0-350MM | 300-1560MM | Up to 8000MM/Coil | |
| | AA 5251 | All Tempers | 0.30-350MM | 300-1560MM | Up to 8000MM/Coil | |
| | AA 5754 | All Tempers | 0.30-350MM | 300-1560MM | Up to 8000MM/Coil | |
| | AA 3003 | | 1.0-4.0MM | 500-1700MM | 500-6000MM | |
| | AA 3105 | | | | | |
| Roller | AA 5005 | All Tempers | | | | |
| coating Sheet | AA 5052 | | 1.0-4.0MM | 500-1560MM | 500-6000MM | |
| | AA 5083 | | | | | |
| | AA 5754 | | 3.0-4.0MM | | | |
| | AA 1100 | | 0.3-3.0MM | 30-1850MM | Up to 6000MM/Coil | |
| Roller | AA 1050 | | 0.3-3.0MM | 30-1850MM | Up to 6000MM/Coil | |
| coating Coil | AA 1060 | | 0.3-3.0MM | 30-1850MM | Up to 6000MM/Coil | |
| | AA 3003 | | 0.3-3.0MM | 30-1850MM | Up to 6000MM/Coil | |
| | AA 3004 | *= | 0.3-3.0MM | 30-1560MM | Up to 6000MM/Coil | |
| | AA 3005 | All Tempers | 0.3-3.0MM | 30-1560MM | Up to 6000MM/Coil | |
| | AA 3104 | | 0.3-3.0MM | 30-1560MM | Up to 6000MM/Coil | |
| | AA 3105 | | 0.5-3.0MM | 30-1560MM | Up to 6000MM/Coil | |
| | AA 5005 | | 0.5-3.0MM | 30-1560MM | Up to 6000MM/Coil | |
| | AA 5052 | | 0.5-3.0MM | 30-1560MM | Up to 6000MM/Coil | |
| | AA 5754 | | 0.5-3.0MM | 30-1560MM | Up to 6000MM/Coil | |



PVDF roller-coating Aluminum Sheet Performance

| It | em of co | pating performance | Aluminum alloy panel | Remark | |
|--------------------|-----------------------|---------------------|-----------------------|---|--|
| | Gloss (20/60) | | 15-35 | JIS K5400 | |
| | Pencil I | nardness | F-H | JIS K5400 | |
| Anhysical | Adhesi | on grid tape test | 100/100 | | |
| A physical | Adhesi | on grid impact test | 100/100 | Impact of pressure | |
| | Bendin | g test | No adverse phenomenon | Bending to pressure | |
| | Conve | x impact test | No adverse phenomenon | | |
| | perforr | nance | 80% | Field southern exposure | |
| Weatherable | Color c | hange | No adverse phenomenon | Exposure period | |
| gloss retention | Gloss retention | | 80% | UV laboratory | |
| | Color change | | No adverse phenomenon | Mechanical testing | |
| | Spray Plane 3000hours | | No adverse phenomenon | 5% Nacl | |
| | Test | Section 3000hours | No adverse phenomenon | 35℃ | |
| | Wet-resistance test | | No adverse phenomenon | | |
| | Acid-re | esistant | No adverse phenomenon | 98% RH 50℃ | |
| Second properties | Alkali-tolerance | | No adverse phenomenon | 5% HCL steep for 240 hours in normal atmospheric temperature | |
| | Pollution-resistance | | No adverse phenomenon | 5% MAOH steep for 240 hours in normal atmospheric temperature | |
| | Wearal | oility-tolerance | 20-30mg | | |

Projects

| S.No | Project name | Location | Consultants | Contractor | Aluminium contractor | Approx Qty M2 |
|------|---|---------------|--------------------------------|-----------------------------------|-------------------------|------------------|
| 1 | B+G+6 Hotel Building Plot No.A002-028 | Dubai | DAR Consultants | AL TAAMIR Gen. Contg. | Alumetal LLC | 5,000 |
| 2 | DIFC Gate Village | Dubai | Hopkins Architect | Arabtec Construction LLC | Multiforms LLC | 50,000 |
| 3 | G+M+1 Showroom | Dubai | ARCHON | AL Bwardy Engineering Ent. | Alumetal LLC | 5,000 |
| 4 | Golf tower-2 | Dubai | National Engr. Bureau | Al Basti & Mukha LLC | Multiforms LLC | 20,000 |
| 5 | The Avenues Kuwait | Kuwait | Nor Group Cons. Ltd. | Alghanim Int'l Gen. Trad. | MERO-TS K GmbH | 10,000 |
| 6 | Residential Bldg.G+10+PH | Sharjah | Emirates Engineering | Al Whasba Contracting | Alumetal LLC | 10,000 |
| 7 | Al Dafna Residential Tower | Qatar | Architectural & Engr. Con. | MZ & Partners | Valley of the Kings | 40,000 |
| 8 | Al Dafna Residential Tower | Qatar | Architectural & Engr. Con. | MZ & Partners | Egyptian Belgian Co. | 40,000 |
| 9 | Ajman Building | Ajman | Fauzi Orabi | New Vision Contracting | Alumetal LLC | 4,000 |
| 10 | Burj View Plot-5 | Dubai | Nor Group Cons. Ltd. | Bin Laden Contracting | Multiforms LLC | 16,000 |
| 11 | Wafi Hotel & Mall Phase 5 Extension | Dubai | Arrif & Bintoak | Khansahab Civil Engineering | Alumetal LLC | 5,000 |
| 12 | Movenpick Hotel & Spa & Oceana Residences | Dubai | Dar Al-Handasah | Dar Al-Handasah | Multiforms LLC | 55,000 |
| 13 | Ajman Expo | Ajman | Fauzi Orabi | New Vision Contracting | Alumetal LLC | 10,000 |
| 14 | Uniworld Headquarters Building | Jebel Ali | Kalavaal Architects | Penta Contracting Co. | Alumetal LLC | 7,000 |
| 15 | The Index Bldg. Project, DIFC | Dubai | Foster & Partners/ Woods | Nasa Multiplex | Multiforms LLC | 35,000 |
| 16 | Contructions of Zayed University | Media City | Dewan Al Emara | Engineering Contracting Co. | Alumetal LLC | 7,000 |
| 17 | City Hospital @ Plot no. B/P-37 @ Dubai | Dubai | SHARAFI- PHB | AL Ahmadiah Aktor | Alumetal LLC | 5,000 |

| 18 | Dubai Maritime City | Dubai | ARENCO | Arabtec Constuction LLC | Alumetal LLC | 3,756 |
|----|---|---------|--------------------------------------|--|-------------------|--------|
| 19 | 2B+G+14 Comm'l & Resi.Bldg.@ Emirates Hill | Dubai | DUBARCH | Bin Belaila Contracting LLC | Alumetal LLC | 10,000 |
| 20 | Abu Ghazali Towers | Sharjah | Al Emmar Enginering | Darwish Engineering Emirates | Alumetal LLC | 13,916 |
| 21 | S-20603 Jafza | Dubai | Green Line International | Core Construction Company | Alumetal LLC | 11,143 |
| 22 | S-20603 Jafza | Dubai | Green Line International | Core Construction Company | Alumetal LLC | 5,000 |
| 23 | Al Habtour Plaza, Dubai Festival City | Dubai | Al Futtaim Carillion | Al Burj Engineering & Cons. | Multiforms LLC | 7,000 |
| 24 | Albwardy Club House @ Awir Polo | Dubai | ARCHON | Albwardy Engineering LLC | Alumetal LLC | 2,000 |
| 25 | IBIS & Movetel Hotels @ Port Saeed, Dubai | Dubai | ATKINS | Khansahab Civil Engineering | Alumetal LLC | 2,423 |
| 26 | Motor City-automall | Dubai | Burt, Hill | Nasa Multiplex | Multiforms LLC | 45,000 |
| 27 | IBIS & Suit Hotels @ Al Barsha, Dubai | Dubai | hatib & Alami Cons. Engr. | Khansahab Civil Engineering | Alumetal LLC | 4,609 |
| 28 | Dubai Marina Mall (Ns01) | Dubai | DP Architects PTE LTD | Al Jaber Engr. & Cont. (ALEC) | Multiforms LLC | 22,000 |
| 29 | Hotel JAL Tower Dubai 1B+G+1M+49 Floor+4Mech+ | Dubai | Dimension Consultant Architect | Aerated Concrete Industries | (ALICO) Alum. | 60,000 |
| 30 | IBIS Hotel | Dubai | | Dutco Balfour Beatty LLC | Multiforms LLC | 12,000 |
| 31 | Dubai Marina Mall Louvers (Ds04) | Beirut | Khatib & Alami Cons. Engr. | Al Jaber Engr. & Cont. (ALEC) | Multiforms LLC | 10,000 |
| 32 | WATERFALLS MALL | Dubai | DP Architects PTE LTD | Al-Ahlia Contracting Group | Alico Kuwait | 7,000 |

| 33 | Emaar Boulevard Plaza Burj Dubai Plot 12&13 | Dubai | Nezar Al Anjari Consulting B. | Samsung Baytur Corporation | Multiforms LLC | 14,000 |
|----|--|---------------|-------------------------------------|-------------------------------------|--------------------------|--------|
| 34 | The Lofts-Burj Dubai Development | Dubai | AEDAS (Rep. Office) | Al Futtaim Carillion | Multiforms LLC | 8,000 |
| 35 | Castle House-London Project | UK | Noor Group Cons. Ltd | Mutiplex Development (UK) LTD | Multiforms LLC | 15,000 |
| 36 | King Abdullah University of Science & Technology | KSA | WSP Group | Saudi Oger LTD. | Multiforms LLC | 52,000 |
| 37 | Dubai Maritime City(Labour Accom. Complex) | Dubai | Oger International/ Hok | Pauling Middle East Co. LLC | Multiforms LLC | 12,000 |
| 38 | Dubai Health Care City Hotel | Dubai | Arence | Al-Basti & Muktha LLC | Multiforms LLC | 15,000 |
| 39 | Renaissance Hotel @ Motor City | Dubai | Robert Matthew, Johnson | Nasa Multiplex | Multiforms LLC | 18,000 |
| 40 | Nad Al Shiba Race Course | Dubai | Burt, Hill | Arabtec Construction LLC | Multiforms LLC | 30,000 |
| 41 | Salam Plaza | Doha Qatar | Teo A. khing Design Cons. | Alunasa WLL | Alunasa W.L.L. | 10,000 |
| 42 | Navigation Tower | Doha Qatar | Salam studio & Store | Hill Int'l Limited Co. | Alunasa W.L.L. | 6,000 |
| 43 | Cayan Building | Doha Qatar | MAZ & Partners & Saz Const. | Test contracting Co. | Wall technology | 7,000 |
| 44 | MAF Hospitality Tower | Dubai | Schuster Pechtold | Khansaheb | Multiforms LLC | 6,000 |
| 45 | 3 TOWERS(X1,X2,X3, towers) | Dubai | NEB | Belhasa Cont. | AL FAYHA ALUMINIUM | 21,006 |
| 46 | 2037 TIARA RESIDENCES | Dubai | | Arabtec Construction LLC | Multiforms LLC | 5,000 |
| 47 | 2020 INDEX TOWER | Dubai | Norman Foster & Patners | Multiplex | Multiforms LLC | 30,000 |
| 48 | TORCH TOWER 80th FLOOR | Dubai | National engr. Bureau | Dubai Civil Enginering | Al Hamad Construction | 40,000 |

TO THE SAME GOAL - KEEP AHEAD TO THE SAME DREAM, FIGHT SIDE BY SIDE