



Fiberglass Reinforced Plastic

**Company Profile
2022**



PT. ecomulti
sinergi 

PT. ECO MULTI SINERGI
ALDEOS BUILDING LT. 6

Jl. Warung Jati Barat No. 39 RT. 10 RW. 04 Kalibata, Pancoran, Jakarta Selatan 12740
Phone 021 - 2753 4458 | Fax 021 - 2753 4459



About Us

Kami berdiri sejak Agustus 2017, dimana perusahaan kami fokus kepada pengadaan barang dan jasa untuk bermacam macam produk komposit khususnya komposit FRP (*Fiber Reinforced Plastic*) seperti tangki, pipa, ladder/tray, mold grating, hand rail, profil (angle bar, round bar/ tube, beam), bolt/ nut dan berbagai produk komposit lainnya serta jasa lining.

Visi

Menjadi perusahaan yang unggul dan terdepan dibidang penyedia barang dan jasa

Misi

Memberikan pelayanan jasa terbaik secara professional,
sistematis dan teknologi yang terintegrasi
Selalu mengutamakan kepuasan pelanggan
Berkomitmen penuh untuk memberi solusi total terhadap
pelanggan
Menjadi perusahaan berskala nasional

PT. ECO MULTI SINERGI
ALDEOS BUILDING LT. 6

Jl. Warung Jati Barat No. 39 RT. 10 RW. 04 Kalibata, Pancoran, Jakarta Selatan 12740
Phone 021 - 2753 4458 | Fax 021 - 2753 4459



OUR FIELD OF SERVICES

- Petrochemical Plants
- Pulp & Paper Plants
- Mining Sector
- Power Plants
- Water Treatment
- Engineering
- Public Infrastructure
- Building & Residential

RANGE OF PRODUCTS & SUPPLIES

- FRP Cable Ladder/ Tray/ Duct & Accesories
- FRP Moulded Grating / Stair Thread & Hand Rail
- FRP Panel Tank
- FRP Piping and Fiting
- FRP Rod/ angle bar/Beam
- FRP Bolt and Nut
- FRP Special Application(Customize)

MAINTENANCE & SERVICE SUPPORT

- FRP FRP Lining & Coating Service
- Cooling Tower Repair

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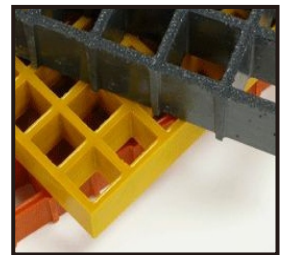
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FRP MOLD GRATING

Mold grating adalah material komposit yang terdiri dari resin yang diperkuat oleh fiberglass dan dibentuk berupa panel/grating dengan cara dicetak.

Kelebihan FRP mold grating antara lain:

- Anti korosi
- Sulit terbakar
- Lebih ringan dari baja
- Tidak bersifat konduktif & tidak bersifat magnetik
- Mudah dalam pekerjaan instalasi
- Pemeliharaan yang mudah (low maintenance)



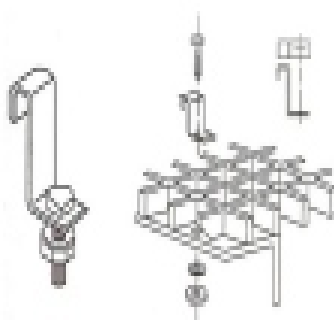
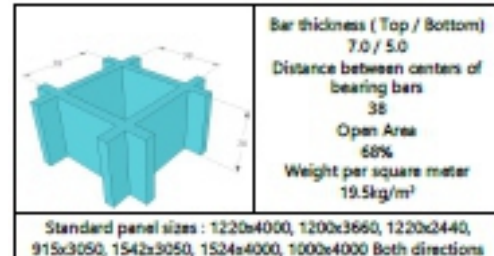
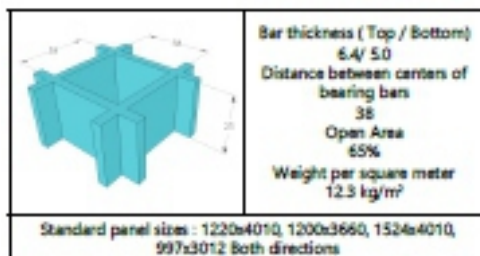
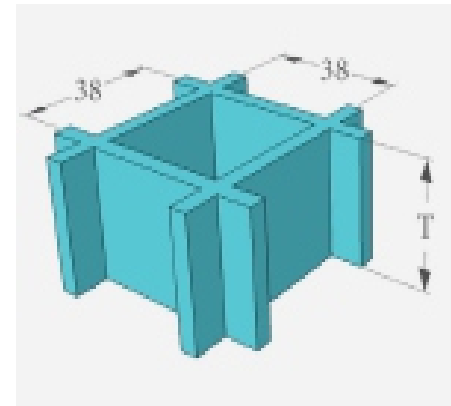
Mold grating size standard



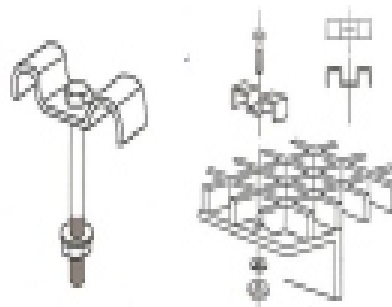
Mold grating size costum

SPECIFICATIONS

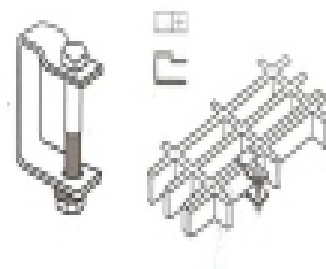
Thickness (mm)	Bar thickness (Top/Bottom)	Mesh size (mm)	Panel Size available (mm)	Weight (kg/m ²)	Open Rate (%)
25	6.5/5.0	38x38	1220x3660, 1226x4010, 1530x4010, 921x3055, 1524x4000, 997x3012	12.3	68
38	7.0/5.0	38x38	1220x3660, 1220x4010, 2100x4240, 998x4010, 1220x2440, 921x3055, 1530x4010, 1530x3050, 1000x4000, 1226x3665	19.5	68



L - Clip



M - Clip



C - Clip

Accesories for installation

PT. ECO MULTI SINERGI

ALDEOS BUILDING LT. 6

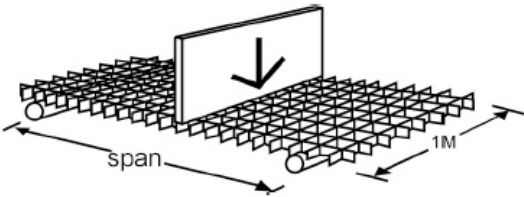
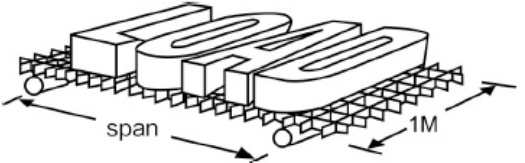
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Tabel loading vs defleksi

Fiberglass Reinforced Plastic (FRP) Molded Grating Loading Deflection Sheet

In Metric Units

Items	 Concentrated Line Load Deflection (Deflection in mm)							 Uniform Load Deflection (Deflection in mm)						
S1T25	38x38x25mm-Mesh Size:38x38mm,Thickness 25mm,Open Rate 68%,Weight 12.3Kg/m2.													
Deflection Span(mm)	Kg/m						Break point	Kg/m						
	75	150	300	450	600	750		240	480	980	1450	2450	3650	4880
450	0.559	1.146	2.159	3.075	4.115	4.749	3910	0.660	1.092	1.930	2.769	4.470	6.579	----
600	0.864	1.702	3.505	5.156	6.706	8.179	2924	1.118	2.108	4.140	6.172	10.21	15.26	----
750	----	----	----	----	----	----	----	2.667	5.387	10.82	16.28	----	----	----
900	2.896	5.918	12.12	18.44	----	----	1948	5.537	11.18	21.72	----	----	----	----
1200	5.715	111.6	----	----	----	----	1461	----	----	----	----	----	----	----
S1T38	38x38x38mm-Mesh Size:38x38mm,Thickness 38mm,Open Rate 68%,Weight 19.5Kg/m2.													
Deflection Span(mm)	Kg/m						Break point	Kg/m						
	75	150	300	450	600	750		240	480	980	1450	2450	3650	4880
300	0.279	0.356	0.483	0.610	0.762	0.889	17116	0.254	0.305	0.381	0.457	0.635	0.838	----
600	0.365	0.660	1.245	1.850	2.464	3.073	8718	0.432	0.813	1.549	2.311	3.835	5.740	----
900	0.864	1.803	3.683	5.563	7.417	9.296	5817	1.702	3.454	6.959	10.46	17.47	----	----
1200	2.261	4.749	9.677	14.63	19.58	----	3755	5.969	12.16	24.51	----	----	----	----

*The loading deflection data listed above is for general information only.

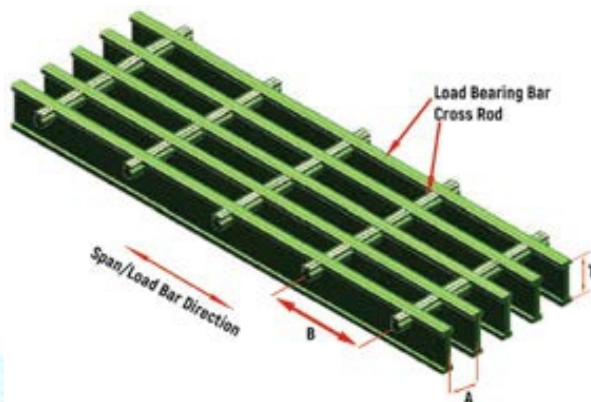
TYPICAL MECHANICAL PROPERTIES

Properties	Test Method	Unit	Value
Tensile Strength	ASTM D 638	Mpa	400-500
Tensile Modulus	ASTM D 638	Mpa	16,000-18,000
Flexural Strength	ASTM D 790	Mpa	400-450
Flexural Modulus	ASTM D 790	Mpa	16,000-19,000
Compressive Strength	ASTM D 495	Mpa	300-350
Izod Impact Notch	ASTM D 256	J/m	2,700-2,900
Hardness (minimum)	ASTM D 2583	Barcal	45
Specific Gravity	ASTM D 792	kg/dm ³	1.9-2.0
Water Absorption	ASTM D 570	%	0.8 (max)

FRP PULTRUDED GRATING

PULTRUDED GRATING THICKNESS

SERIES	GRATING Thickness. T (mm)	Load Bar Pitch. A (mm)	Cross Rod Pitch. B (mm)	Open Area (%)	Unit Weight (kg/m ²)
EMS-25	25	30	150	30	11
EMS-40	40	30	150	30	18
EMS-50	50	30	150	30	22



Standard panel sizes:
900W x 5850L



FRP PULTRUDED GRATING

LOAD BEARING CAPACITY

EMSPG-25

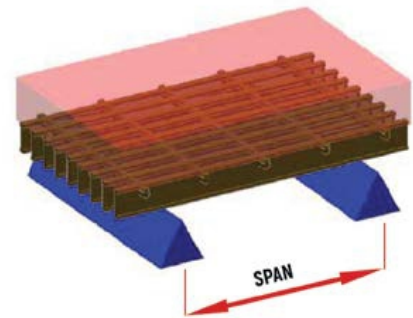
Span (mm)	UNIFORM LOAD (kg/m)																		
	100	150	200	300	400	500	600	800	900	1000	1200	1400	1600	2000	3000	4000	5000	8000	9000
	DEFLECTION δ (mm)																		
250	0.003	0.005	0.006	0.009	0.012	0.015	0.018	0.024	0.027	0.029	0.035	0.041	0.047	0.059	0.088	0.117	0.146	0.234	0.263
500	0.052	0.075	0.098	0.145	0.192	0.239	0.285	0.379	0.425	0.472	0.565	0.659	0.752	0.939	1.406	1.872	2.339	3.740	4.206
750	0.262	0.380	0.499	0.735	0.971	1.208	1.444	1.917	2.153	2.389	2.862	3.335	3.807	4.753					
1000	0.829	1.203	1.576	2.323	3.070	3.817	4.564	6.057											
1250	2.024	2.936	3.848	5.671	7.495														
1500	4.197	6.088	7.978																
1750	7.776																		

Span (mm)	UNIFORM LOAD (kg)																		
	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500
	DEFLECTION δ (mm)																		
250	0.04	0.06	0.08	0.09	0.11	0.13	0.15	0.17	0.19	0.21	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.37
500	0.15	0.23	0.30	0.38	0.45	0.53	0.60	0.68	0.75	0.83	0.90	0.98	1.05	1.13	1.20	1.27	1.35	1.42	1.50
750	0.36	0.53	0.70	0.87	1.03	1.20	1.37	1.54	1.71	1.87	2.04	2.21	2.38	2.55	2.71	2.88	3.05	3.22	3.39
1000	0.68	0.98	1.28	1.58	1.87	2.17	2.47	2.77	3.07	3.37	3.67	3.97	4.26	4.56	4.86	5.16	5.46	5.76	6.06
1250	1.13	1.60	2.07	2.53	3.00	3.47	3.94	4.87	5.34	5.80	6.27	6.74							
1500	1.76	2.43	3.10	3.78	4.45	5.12	5.79	6.47											
1750	2.60	3.52	4.43	5.35	6.26														

EMSPG-45

Span (mm)	UNIFORM LOAD (kg/m)																		
	100	150	200	300	400	500	600	800	900	1000	1200	1400	1600	2000	3000	4000	5000	8000	9000
	DEFLECTION δ (mm)																		
250	0.003	0.004	0.005	0.007	0.009	0.011	0.013	0.018	0.020	0.022	0.027	0.031	0.035	0.044	0.066	0.088	0.109	0.175	0.197
500	0.041	0.059	0.076	0.111	0.146	0.181	0.216	0.285	0.320	0.355	0.425	0.495	0.565	0.704	1.053	1.402	1.751	2.798	3.147
750	0.208	0.297	0.385	0.562	0.739	0.915	1.092	1.445	1.622	1.799	2.152	2.505	2.895	3.565					
1000	0.659	0.938	1.217	1.776	2.334	2.892	3.451	4.568											
1250	1.609	2.290	2.972	4.335	5.698														
1500	3.336	4.749	6.162																
1750	6.180																		

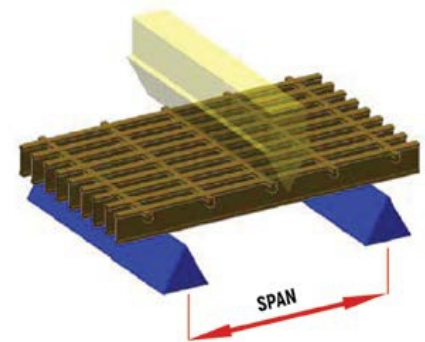
Span (mm)	UNIFORM LOAD (kg)																			
	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	
	DEFLECTION δ (mm)																			
250	0.03	0.04	0.06	0.07	0.08	0.10	0.11	0.13	0.14	0.15	0.17	0.18	0.20	0.21	0.22	0.24	0.25	0.27	0.28	
500	0.12	0.17	0.23	0.29	0.34	0.40	0.45	0.51	0.54	0.62	0.68	0.73	0.79	0.84	0.90	0.96	1.01	1.07	1.12	
750	0.28	0.41	0.53	0.66	0.79	0.91	1.04	1.16	1.29	1.41	1.54	1.67	1.79	1.92	2.04	2.17	2.29	2.42	2.54	
1000	0.55	0.77	0.99	1.22	1.44	1.66	1.89	2.11	2.33	2.56	2.78	3.00	3.23	3.45	3.67	3.90	4.12	4.34	4.57	
1250	0.94	1.29	1.64	1.99	2.34	2.69	3.04	3.39	3.74	4.08	4.43	4.78	5.13							
1500	1.51	2.02	2.52	3.02	3.52	4.03	4.53	5.03												
1750	2.31	2.99	3.68	4.36	5.05															



UNIFORM LOAD

EMSPG-50

Span (mm)	UNIFORM LOAD (kg/m)																		
	100	150	200	300	400	500	600	800	900	1000	1200	1400	1600	2000	3000	4000	5000	8000	9000
	DEFLECTION δ (mm)																		
250	0.003	0.004	0.005	0.007	0.009	0.011	0.013	0.017	0.019	0.021	0.025	0.029	0.033	0.042	0.062	0.083	0.104	0.166	0.186
500	0.040	0.057	0.073	0.106	0.139	0.172	0.205	0.217	0.305	0.338	0.404	0.470	0.536	0.668	0.998	1.328	1.659	2.649	2.980
750	0.204	0.288	0.371	0.538	0.706	0.873	1.040	1.374	1.542	1.709	2.043	2.378	2.712	3.381					
1000	0.645	0.909	1.173	1.702	2.230	2.758	3.287	4.344											
1250	1.574	2.219	2.864	4.154	5.444														
1500	3.264	4.601	5.939																
1750	6.046																		



CONCENTRATED LOAD

Span (mm)	UNIFORM LOAD (kg)																			
	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	
	DEFLECTION δ (mm)																			
250	0.03	0.04	0.05	0.07	0.08	0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.19	0.20	0.21	0.23	0.24	0.25	0.26	
500	0.11	0.17	0.22	0.27	0.32	0.38	0.43	0.48	0.54	0.59	0.64	0.69	0.75	0.80	0.85	0.91	0.96	1.01	1.06	
750	0.27	0.39	0.51	0.63	0.75	0.87	0.99	1.11	1.23	1.34	1.46	1.58	1.70	1.82	1.94	2.06	2.18	2.03	2.41	
1000	0.54	0.75	0.96	1.17	1.38	1.60	1.81	2.02	2.23	2.44	2.65	2.86	3.08	3.29	3.50	3.71	3.92	4.13	4.34	
1250	0.94	1.27	1.60	1.94	2.27	2.60	2.93	3.26	3.59	3.92	4.25	4.58	4.91							
1500	1.54	2.02	2.49	2.97	3.44	3.92	4.39	4.87												
1750	2.38	3.03	3.68	4.33	4.97															



CORROSION RESISTANCE GUIDE

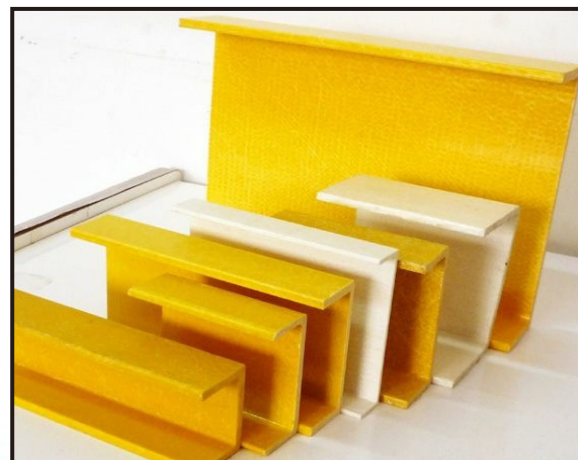
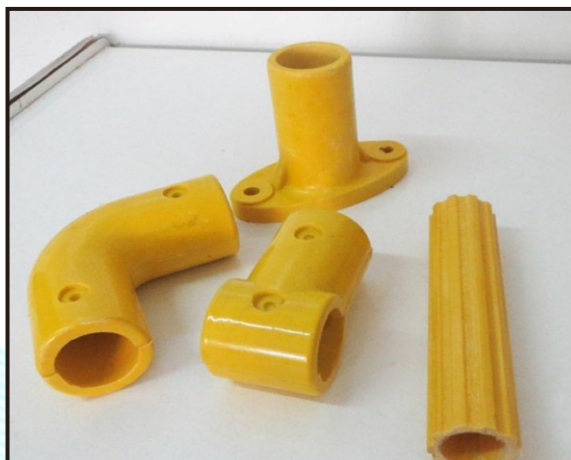
NR – indicates not recommended for use.

Chemicals	Type 'vinylester'		Type 'Iso'	
	%Conc.	Max. Oper. Temp	%Conc.	Max. Oper. Temp
Acetic acid	50	180/82	50	125/52
Aluminum hydroxide	100	180/82	100	160/71
Ammonium Bicarbonate	50	150/65	15	125/52
Ammonium Chloride	ALL	210/99	ALL	170/77
Ammonium Hydroxide	28	100/38	28	N/R
Ammonium oxidation	ALL	190/88	ALL	170/77
Ammonium sulfate	ALL	200/93	ALL	170/77
Ammonia water	28	100/38	28	N/R
Benzene	100	92/40	ALL	N/R
Benzoic Acid	SAT	200/93	SAT	150/66
Borax	SAT	200/93	SAT	170/77
Carbon tetrachloride	100	92/40	100	N/R
Calcium carbonate	ALL	180/82	SAT	170/77
caCalcium Nitrate	ALL	200/93	ALL	180/82
Chlorinated Water	SAT	200/93	SAT	80/27
Chromate	10	120/49	5	70/21
Citric Acid	ALL	200/93	ALL	170/77
Distilled water	100	180/82	100	170/77
Ethyl alcohol	10	155/82	50	75/24
Ferric chloride	ALL	210/99	ALL	170/77
Formaldehyde	37	140/60	50	75/24
Glycerin	100	210/99	100	150/66
Hydrobromic acid	50	120/49	50	120/49
Hydrochloric acid	37	150/65	37	75/24
Hydrogen peroxide	30	150/65	5	100/38
Lactic acid	ALL	200/93	SAT	170/77
Nirate	20	100/38	20	70/21
Magnesium Nitrate	ALL	210/99	ALL	140/60
Mercuric chloride	100	210/99	100	150/66
Methanol	10	183/84	N/R	N/R
OH	100	170/77	100	160/71
Oxalic acid	ALL	120/96	ALL	75/24
Perchloric acid	30	80/27	N/R	N/R
Petrol	100	180/82	100	75/24
Phosphate	100	200/93	100	120/49
Potassium dichromate	ALL	210/99	ALL	170/77
Potassium Sulfate	ALL	210/99	ALL	170/77
Sea water	ALL	210/99	ALL	158/70
Sodium bromide	ALL	210/99	ALL	170/77
Sodium hydroxide	25	180/82	N/R	N/R
Sulfuric acid	75	100/38	25	75/24
Tartaric acid	ALL	200/93	ALL	170/77
Vinegar	100	200/93	100	170/77

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Other Product



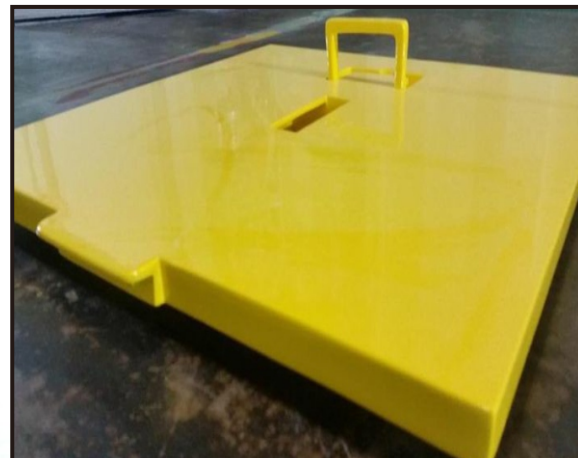
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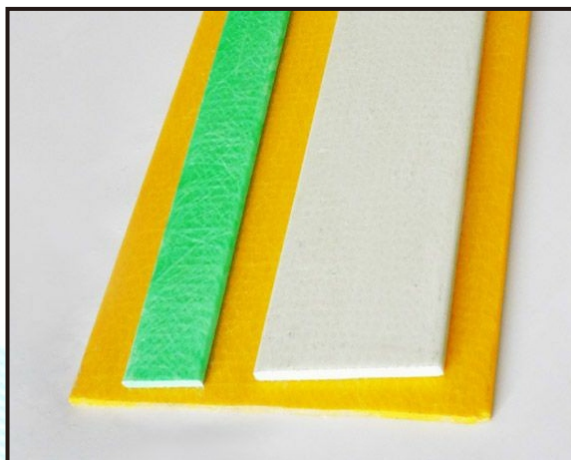
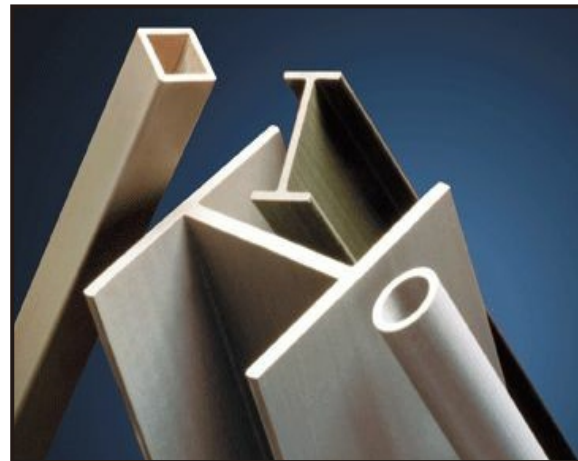
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LIST OUR CLIENTS

- * PT. Toyota Motor Manufacturing Indonesia - Karawang
- * PT. Honda Prospect Motor - Karawang
- * PT. Bintang Delapan Mineral - Morowali
- * PT. Iron Wire Works Indonesia - Tangerang
- * PT. Sulfindo Adi Usaha
- * PT. Kinden Indonesia - Cilegon
- * PT. Meiden Engineering - Cilegon
- * PT. Lautan Organo Water
- * PT. Firmenich Aromatics Indonesia - Karawang
- * PT. Avindo Bangun Gemilang - Cluster Victoria Park, Bogor
- * PT. Prima Konstruksi Utama – Cilegon
- * PT. Cahaya Bintang Agung – Gold Coast Apartement
- * PT. Atminco – Kaltim Nitrate Balikpapan
- * PT. Lembah Sentral Elektronindo – GIS Mampang
- * PT. Kyokuto Indomobil MFG – Dawuan
- * PT. Pacinesia Industri
- * PT. Mulia Solusindo (Kaltim Nitrat Indonesia)
- * PT. Sango Indonesia
- * PT. Dos Ni Roha
- * CV. Bima Reksa Toya Fiberglass



COMPANY LEGALITIES

Nama Perusahaan : PT. ECO MULTI SINERGI

Direktur : Eko Saputro, SE

Dokumen Legalitas :

* **Akta Notaris M. Hilman Hakim SH MKn**

Nomor : 10 tanggal 18 Agustus 2017

* **Surat Izin Usaha Perdagangan (SIUP)**

Nomor : 510.41/028/02753/DPMPTSP/2017

* **Tanda Daftar Perusahaan (TDP)**

Nomor : 10.20.3.46.13559

* **Nomor Pokok Wajib Pajak (NPWP)**

Nomor : 82.753.530.3-434.000

* **Surat Keterangan Domisili Usaha (SKDU)**

Nomor : 503/027/VIII/2017

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