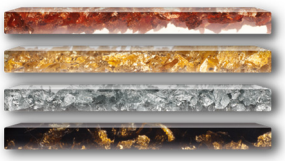
PHOENIX MIRAGE FOIL



Product Description

Phoenix Mirage FOIL, delicate metal flakes float weightlessly within, resembling small mountain ranges, rock formations, and sparkling worlds. Captured in crystal clear or tinted acrylic glass, with each contour line creating shimmering landscapes within. This creates an exhilarating spectacle and optical illusion.

Phoenix Mirage FOIL can exist with integrated LED lighting to create an astounding vibrant piece of decorative wall art.

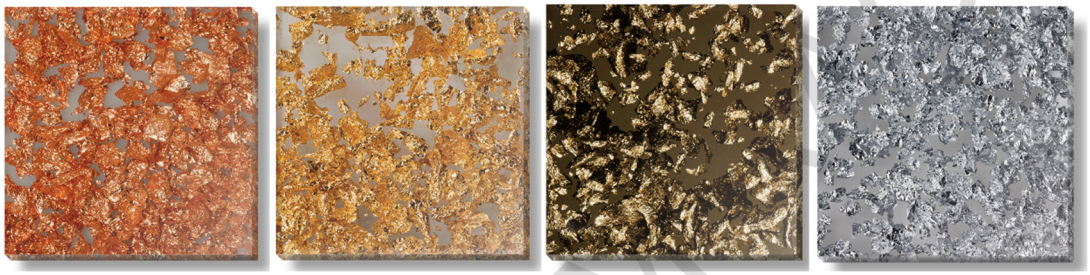
FOIL is produced from pure PMMA cross linked polymers for higher durability and resistance against scratching and UV rays. Hand-crafted, FOIL is designed with fragile pieces of foil (Copper, Gold, Gold in Brown or Silver), introduced during the production, and forming of the panels.

FOIL is a functional and decorative panel. It can be produced in varied thicknesses and can be used for an array of project installations and applications. FOIL is ethically sourced, non-toxic, halogen free UV resistant and hand-crafted.

Available Colors

Copper, Gold, Gold in Brown, Silver

(Variations in dye lots may result in slight color differences between samples provided and finished product)



Available Sizes

(Custom thicknesses on request)
(8mm & 10mm have a MOQ of 10 sheets

Panel Size	94.48" x 39.37" (2400mm x 1000mm)	118.11" x 47.24" (3000mm x 1200mm)
Panel Thickness		
8mm Thick	*	*
10mm Thick	*	*
12mm Thick	*	*
15mm Thick	*	*
18mm Thick	*	*
20mm Thick	*	*

Panel Weight

Panel Size	94.48" x 39.37" (2400mm x 1000mm)	118.11" x 47.24" (3000mm x 1200mm)
Panel Thickness		
8mm Thick	23 kg	35 kg
10mm Thick	29 kg	43.2 kg
12mm Thick	35 kg	52 kg
15mm Thick	43.2 kg	65 kg
18mm Thick	52 kg	78 kg
20mm Thick	58 kg	86.4 kg

Edge Finishing

Edges of Phoenix Mirage FOIL can be polished for an upcharge and are available in a variety of different forms. In addition to a straight edge, edges may accept beveling, rounding, etc. Additional finishing, such as sanding or polishing, can also be provided to some edges. We use a polishing paste and a cotton rotative disc it is possible to polish till a glass transparent cut. Surface scratches can also be removed in the same way.

Tolerances

Thickness: +-0,6 mm+10% of the nominal thickness (extended UNI EN 7823); sheet dimensions: +-3% on nominal size
Material tolerances for PMMA cast acrylic up to 25 mm thickness according to DIN EN ISO 7823-1 must be considered.

Processing tolerances acc. to DIN ISO 2768

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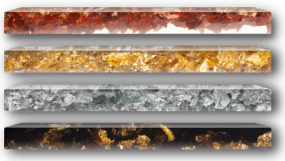

Product data sheet

Polymerization: Homopolymer & Copolymeric (Monomers)
Polymethylmethacrylate -PMMA in Sheet and Block Form

CHEMICAL COMPOSITION			
PMMA (polymethylmethacrylate)	96-100% depending on compound		
Functional monomers and other additives	0-4% depending on compound		
Estimated molecular weight	between 3.8x106 and 9.5x10^6		
Residual constituents of free monomers	<1% (typical 0.45%) depending on compound		
MECHANICAL	**Value**	**Unit of measure**	**Standard**
Density	1.19	g/cm^3	ISO 1183
Impact value	1.8	K/m^2	ISO 180/1A
Tensile strength at 20°C	68	Mpa	ISO 527
Elongation at rupture	4	%	ISO 527
Bending properties	103	Mpa	ISO 178
Compressive strength	103	Mpa	ISO 604
Ball impact strength	166	Mpa	ISO 2039-1
Scratch resistance after grinding wheel test	37	% Haze	ISO 9532
ACOUSTIC			
Acoustic velocity at 20°C	2800	m/s	
Estimated sound insulation value Rw for 10mm	32	dB	
OPTICAL			
Transmittance	92.2	%	DIN 5036/3
UV-translucence	no	%	
Reflection loss	< 4	%	
Total energy transmission factor g	84	%	DIN EN 410
Absorption in visible range	< 0.05	%	
Optical refraction index	1.49		ISO 489
ELECTRICAL			
Earth resistance	> 10^{14}		DIN VDE 0303
Surface resistance	> 10^{14}		DIN VDE 0303
Dielectric coefficient at 60Hz	3.5		DIN VDE 0303
Dielectric loss factor at 60Hz	0.065		DIN VDE 0303
BEHAVIOUR IN WATER			
Water absorption 24h 20°C sample 65x65x2mm^3	42	mg	ISO 62
Max. increase in weight after water absorption	2.2	%	ISO 62
THERMAL			
Linear Coeff. of expansion between 0 and 55°C	0.07	mm/m°C	DIN 53572-A
Possible expansion through heat and moisture	7	mm/m	
Thermal conductivity	0.19	W/mK	DIN 52612
Coeff. of thermal conductivity sample 10mm	4.45	W/m^{2}K	DIN 4701
Specific heat	1.47	J/gK	
Recommended forming temperature	140	C	
Maximum surface temperature	190	C	
Maximal recommended continued use temp.	81	C	
Relaxation temperature	> 85	C	
Auto-inflammation temperature	420	C	
Waste gas volume	low		
Toxicity of waste gases	no		
Corrosivity of waste gases	no		
Material class	B2		
Vicat-softening temperature	112	C	

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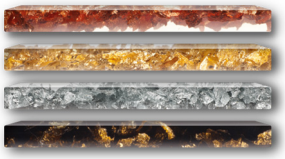

Technical Information

Our panels are cast starting by only optical-class methyl methacrylate virgin monomer, manufactured under strict rules and standards. This is the original and the only monomer, which can be used to manufacture polymethylmethacrylate homopolymer + copolymeric (PMMA) since 1933.

PMMA is NON-TOXIC and COMPATIBLE WITH the HUMAN BODY: First class methacrylate can be applied in contact with the human body like a prosthesis: PMMA is skull, bone, and teeth replacement material since the 50's. Since our plant produces goods for technical markets, our PMMA was certified according to CE 93/42 (number of authorization IT 0068/QPR-DM/053-2011) for medical use like, for example, orthodontic prosthesis: it passed all tests (carcinogenic, mutagenic, residual monomer, cell growth).

PMMA is 100% Recyclable; one of the few plastic materials that can be turned again into monomer in a reliable process called "cracking process". Just to go a bit deeper, PMMA is one of the few materials, which comes back into the original liquid form and can be reused for second choice applications like paints, automotive parts and acrylic textiles or recycled acrylic sheets, good for several purposes.

Our panels are produced 99.7% with a 100% recyclable nontoxic monomer. We believe THIS IS GREEN! This raw material costs far more than the recycled one but guarantees a total traceability of the eventual pollutants (manufacturers of monomer give a certificate of analysis batch after batch) and express more stable and uniform properties. Recycled "materials" (no one, in the end, knows from what raw material source they are done!) contains huge proportion of "recycled plastics." Most of them come from Far east plants and contain, evidently, a lot of polymers that are very difficult to control. So, batch after batch there are different properties, different compositions and, in the end, different pollutants (styrene, PVC like polymers and antimony and heavy metals like pollutants derived by plastic composition that were allowed to be produced years ago). All our factory waste is sent to recycling plants with a traced register.

CAST PMMA is the "leader" of plastic for outdoor use: highly opaque to UV is often stabilized with the economic benzophenone's compounds (some of these are suspected carcinogenic). We protect our panels with high-cost FOOD GRADE UV stabilizers. Our panels will not become opaque within 30 years. Most of the polyesters and "eco" panels produced worldwide will last one tenth of this time below the sun reporting quickly hazing and yellowing.

Lastly, our panels are manufactured by pure MMA polymerized entirely in our plants and converted in PMMA; typical residual unconverted monomer present in CAST PMMA ranges by 1,2 till 2% (often above...); our panels were tested during the abovementioned certification to contain an unconverted monomer quantity of 0,37%, an excellent value that can be achieved only if working with all care.

Recyclability

Plastic is typically hard to fully recycle. Polymer needs to be selected, grinded and often melted together which is an extremely expensive and lengthy process, sometimes pollutant; this process is often conducted in developing counties where pollution legislation and regulations are less stringent. Plastics as PS, PC, PP, PET and similar once dismissed can be re-used just as fillers as, for example, for asphalt, concrete, or rubber.

PMMA is one of the few plastics that can be fully converted back into its raw material (MMA) via pyrolysis. Pyrolysis is a green and ambient friendly process that allows almost 100% recovery of PMMA into a monomer that can be recycled and reused without a limit. Our regulations are strict and since PMMA is a precious plastic, the process is conducted safely and cautiously to receive top quality material back.

Our factories are specialist companies for pyrolysis and so our polymer can be recovered fully and rapidly in an ambient friendly procedure.