

DSM 3.5.5

Acrylic Sheet (Cast)

Bronze

General:

ACRYLIC (PMMA) available in the form of moulding powders, casting syrups & pellets for injection moulding & extrusion.

Benefits:

- Exceptional clarity and optical properties, low UV sensitivity (does not yellow) and overall weather resistance; as such Acrylic is often used as a glass substitute being half the weight.
- They are slow-burning and do not emit harmful smoke or gases. If extreme strength is not a requirement, PMMA offers an economical (approx.35% cheaper) alternative to Polycarbonate.
- Acrylic has 17 times the impact resistance of glass. Polycarbonate has 250 times the impact resistance of glass.
- Sheets can be cold formed in a smooth arc & retained in a curved channel support.
- Sheets can be hot formed at low pressures with low cost moulds (wood) providing an economical 'fixed' solution.
- Good for machining, polishing and solvent welding. Large choice of colours and tints.

Limitations: (unmodified)

- Poor solvent resistance: Attacked by ketones, esters & aromatic hydrocarbons.
- Subject to stress cracking
- Low continuous service temperature: (95°C)
- Non modified PMMA is brittle under load and prone to scratching & static build up.
- Not easily biodegradable and difficult to recycle.

ASM (DEK) Applications:

- Machine windows

Engineering drawing to include reference: **Cosmetic Finish Standard:** (DSF 3.2.9)

These values are representative. For critical applications, refer to data-sheet.

MECHANICAL PROPERTIES					
	HARDNESS Shore A	TENSILE STRENGTH:	YOUNGS MODULUS:	POISSONS RATIO:	DENSITY:
PMMA Cast	70	75 MPa	3.2 GPa	0.38	1190 Kg/m³

GRADE	SUPPLIER	
Perspex Cast: Brown 504	PERSPEX	0 HITS (SPEC. AS PER DSM 301)

Issue	01	02	03	04	05	06	07	08	09
DCR		7135	44832						