

ENGINEERING DATA SHEET

ASMPT

DSM 3.5.71

Acrylic Sheet (Cast) Frost Perspex

1. General:

ACRYLIC (PMMA) available in the form of moulding powders, casting syrup & 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.

2. Limitations: (Unmodified)

- Poor solvent resistance: Attacked by ketones, esters & aromatic hydrocarbons.
- Subject to stress cracking
- Low continuous service temperature: (85°C).
- Non modified PMMA is brittle under load and prone to scratching & static build up.
- Not easily biodegradable and difficult to recycle.

3. ASMPT (DEK) Applications:

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

These values are representative. For critical applications, refer to datasheet.

MECHANICAL PROPERTIES					
Material:	TENSILE STRENGTH:	FLEXURAL STRENGTH:	ELONGATION BREAK:	FLEXURAL MODULUS:	DENSITY:
PMMA Cast	75 MPa	116 MPa	4 %	3210 Mpa	1.19 g/cm³

4. Drawing Call Out:

- **DSM 3.5.71_Black Frost** is for material: Midnight Black 9221 0% Light Transmission.

5. Manufacturers Material Data Sheet:

Please see below PDF document from Bay Plastics Material data sheet.



Adobe Acrobat
Document

Issue	01	02	03	04	05	06	07	08
Date	19/12/2024							