ENGINEERING DATA SHEET

DSM 3.6.3
Acrylic Sheet (Cast)
Anti - Static – Transparent Clear

General:

Cast Acrylic (PMMA) sheets offer greater thermal stability and better resistance to crazing when exposed to solvents. The thermoforming temperature range for cast sheets is wider. They can be reworked hot, which is not always possible with extruded sheets. The surface finish, flatness and optical properties of Cast Acrylic are all superior to Extruded Acrylic sheets.

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 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:

- 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 Thickness: 2, 3, 4, 5, 6, 8, 10, 12, 15 & 20mm

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					
MATERIAL DETAILS	TENSILE STRENGTH:	YOUNGS MODULUS:	POISSONS RATIO:	DENSITY:	UL No:
ESLON DC ESD: AC 405 AS: Clear	**75** MPa	**2.9** GPa	**0.38**	**1190** Kg/m^3	**----**

Alternatives:

Alternative polymers are allowed only with the express written permission of ASMPT. Please email details of your request to engineering_enquiries@asmpt.com

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