

# ABS

## ESCR

### ER-72M

| Property             | Test method (ASTM) | Test condition    | Unit               | Typical value |
|----------------------|--------------------|-------------------|--------------------|---------------|
| Izod impact          | D-256              | 6.4 mm , notched  | Kj/m <sup>2</sup>  | 36            |
| Melt flow index      | D-1238             | 220°C , 10 kg     | gr/10 min          | 6             |
| Rock well hardness   | D-785              | .....             | R-scale            | 105           |
| HDT                  | D-648              | 1.82 m pa         | °c                 | 85            |
| Vicat softening Temp | D-1525             | 5kg/50°C          | °c                 | 95            |
| Tensile strength     | D-638              | 23°C , 50 mm/min  | Kg/cm <sup>2</sup> | 430           |
| Tensile elongation   | D-638              | 23°C , 50 mm/min  | %                  | 30            |
| Flexural strength    | D-790              | 23°C , 2.8 mm/min | Kg/cm <sup>2</sup> | 620           |
| Flexural Modulus     | D-790              | 23°C , 2.8 mm/min | Kg/cm <sup>2</sup> | 19000         |
| Specific Gravity     | D-792              | 23°C              | ..                 | 1.04          |
| Molding Shrinkage    | D-955              | ...               | %                  | 0.4-0.7       |
| Flammability         | UL94               | 1/8 inch (3.2mm)  | ...                | HB            |

### TYPICAL ABS PROCESSING CONDITIONS

**DRYING:** it is recommended that GBPC ABS Resins be dried at (80-85°C) for 3 hours.

Extruder with one-stage or two-stage venting are recommended for extrusion of sheet. compression ratios should be between 2.5/1 and 3.0/1 for a single stage screw and L/D ratios 20/1 is typical.

| Zone 1(°c) | Zone 2(°c) | Zone 3(°c) | Zone 4(°c) | Zone 5(°c) | Zone 6(°c) | Zone 7(°c) |
|------------|------------|------------|------------|------------|------------|------------|
| 190-210    | 210-230    | 220-240    | 225-245    | 225-245    | 225-245    | 225-245    |

| Adapter(°c)       | Outer Die zone(°c)   | Mid Die zone (°C)    | Center Die zone (°C)   | Screen Pack Mesh (2layer) |
|-------------------|----------------------|----------------------|------------------------|---------------------------|
| 225-245           | 225-235              | #60-80               | 220-240                | #40 / #80 / #80 / #40     |
| Nip Roll Top (°C) | Nip Roll Middle (°C) | Nip Roll Bottom (°C) | Die Lip Thickness (mm) | Head Pressure             |
| 50-70             | 60-80                | 70-90                | 3.2-4.0                | 140 bar                   |