

Technical Data Sheet

Product Description

FM ABS04

ABS04 is a general purpose ABS resin with high impact resistance. Application includes automobile parts (radiator grills), helmets, toys, suitcases, shoe heels, ski's, golf club heads, sports equipment and suitcases.

| <i>Characteristic</i> | <i>Typical Value</i> | <i>Unit</i> | <i>ABS-40 specification</i> | <i>Test Method (ASTM)</i> | <i>Test Condition</i> |
|-----------------------------|----------------------|--------------------|-----------------------------|---------------------------|-----------------------|
| <i>Izod impact</i> | 32 | Kj/m ² | Min 26 | D-256 | 6.4 mm, notched |
| <i>Melt flow index</i> | 25 | gr/10 min | 18-28 | D-1238 | 220°C, 10 kg |
| <i>Rock well hardness</i> | 98 | R-scale | 90-110 | D-785 | - |
| <i>HDT</i> | 82 | °C | Min 82 | D-648 | 1.82 m pa |
| <i>Vicat softening temp</i> | 92 | °C | Min 93 | D-1525 | 5kg/50°C |
| <i>Tensile strength</i> | 400 | Kg/cm ² | Min 390 | D-638 | 23°C , 50 mm/min |
| <i>Tensile elongation</i> | 30 | % | Min 25 | D-638 | 23°C , 50 mm/min |
| <i>Flexural strength</i> | 580 | Kg/cm ² | Min 530 | D-790 | 23°C , 2.8 mm/min |
| <i>Flexural modulus</i> | 18000 | Kg/cm ² | Min 15000 | D-790 | 23°C , 2.8 mm/min |
| <i>Specific gravity</i> | 1.04 | - | 1.04 | D-792 | 23°C |
| <i>Molding shrinkage</i> | 0.4-0.7 | % | 0.4-0.7 | D-955 | - |
| <i>Flammability</i> | HB | - | HB | UI94 | 1/8inch (3.2mm) |

Notes: Values shown are averages and are not to be considered as product specification. These values may shift slightly as additional data is accumulated. - ISO test methods are the latest under the society's current procedures.

Health & Safety

Ensure proper ventilation of the work environment to minimize health and safety hazards from fine particles. Ensure machinery and equipment is properly grounded to prevent sparks that can ignite dust. Molten polymers will cause thermal injuries to organic matter please ensure safety glasses and appropriate safety apparel is worn.

Typical ABS processing conditions

Drying: it is recommended that FM Plastics ABS Resins be dried at (80-85°C) for 3 hours. A moisture level of $\leq 0.1\%$ should be reached before injection molding the resin. The following molding conditions are recommended starting point for ABS Resin. Some modifications may be required depending on the specific molding equipment and part configuration.

Injection Moldin

| | | | |
|------------------|---------|------------------|----------|
| Rear Temp (°C) | 190-200 | Nozzle Temp (°C) | 215-225 |
| Center Temp (°C) | 200-210 | Melt Temp (°C) | 230 |
| Center Temp (°C) | 210-220 | Mold Temp (°C) | 60-80 |
| Front Temp (°C) | 210-220 | Filling Speed | Slow-med |

Packaging

ABS resins are supplied in pellet form packed in 25kg bags on 1.375 kg pallets or in 1.100 kg big bags.



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