

MA-90309M ASA Compound

### **Product Description**

MA-90309M is used in co-extrusion and extrusion molding applications. The key benefits of this material is that it provides great weather-resistance ability and has great fluidity thus providing equal and smooth application.

### **Typical Applications**

Extruded outdoor purpose products including window profiles, door profiles, etc.

#### Typical data

| Properties                           |  | Unit               | Test Method | Value (1) |
|--------------------------------------|--|--------------------|-------------|-----------|
| Physical                             |  |                    |             |           |
| Specific Gravity                     |  | g/cc               | ASTM D792   | 1.08      |
| Molding Shrinkage                    |  | %                  | ASTM D955   | 0.4~0.7   |
| Melt Flow Index (220°C/10kg)         |  | g/10min            | ASTM D1238  | 7         |
| Mechanical                           |  |                    |             |           |
| Tensile Strength (50mm/min)          |  | kg/cm <sup>2</sup> | ASTM D638   | 400       |
| Tensile Modulus (1mm/min)            |  | kg/cm <sup>2</sup> | ASTM D638   | 17,000    |
| Tensile Elongation Yield (50mm/min)  |  | %                  | ASTM D638   | 6         |
| Tensile Elongation Break (50mm/min)  |  | %                  | ASTM D638   | 25        |
| Flexural Strength (15mm/min)         |  | kg/cm <sup>2</sup> | ASTM D790   | 660       |
| Flexural Modul                       | Flexural Modulus (15mm/min)                  |                    | ASTM D790   | 20,500    |
|                                      | 1/4", 23°C                                   | kg.cm/cm           | ASTM D256   | 14        |
| IZOD Impact<br>Strength<br>(Notched) | 1/4", -30°C                                  | kg.cm/cm           |             | 4         |
|                                      | 1/8", 23℃                                    | kg.cm/cm           |             | 18        |
|                                      | 1/8", -30°C                                  | kg.cm/cm           |             | 4         |
| Rockwell Hardness (R-Scale)          |  | -                  | ASTM D785   | 98        |
| Thermal                              |  |                    |             |           |
| Heat Deflection<br>Temperature       | 18.5kg/cm <sup>2</sup> , 1/4"<br>(annealed)  | ℃                  | °C          | 90        |
|                                      | 18.5kg/cm <sup>2</sup> , 1/4" (unannealed)   | ℃                  |             | 80        |
|                                      | 4.6kg/cm <sup>2</sup> , 1/4"<br>(annealed)   | ℃                  |             | 95        |
|                                      | 4.6kg/cm <sup>2</sup> , 1/4"<br>(unannealed) | °C                 |             | 89        |
| Vicat Softening Temperature          |  | $^{\circ}$         | ASTM D1525  | 90        |
| Flammability                         | 1/8"   | class              | UL94        | НВ        |
|                                      | 1/10"  | class              |             |           |
|                                      | 1/16"  | class              |             | НВ        |

<sup>(1)</sup> Typical values: not to be construed as specification limits



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# **Suggested Processing Condition**

## Sample 1. Korean Extruder

| Item              | Conditions | Comments   |  |  |  |
|-------------------|------------|--|--|--|--|
| Drying            |            |  |  |  |  |
| Temperature       | 80℃        | Varies depending on initial moisture content, dryer efficiency and relative humidity.  |  |  |  |
| Time              | > 4 hours  |  |  |  |  |
| Temperature Range |            |  |  |  |  |
| Cylinder 1        | 165~175°C  | Suggested for the reference. The range may vary slightly depending on the machine used for the process.  Depending on the type of main resin used and the kind of fina product (size, thickness, etc.), appropriate processing condition should be chosen for the best result. |  |  |  |
| Cylinder 2        | 170~180°C  |  |  |  |  |
| Cylinder 3        | 175~185°C  |  |  |  |  |
| Adapter           | 175~185°C  |  |  |  |  |

<sup>\*</sup>Conditions varies greatly depending on the Extruder machine.

# Sample 2. Chinese Extruder

| Item              | Conditions | Comments  |  |  |  |
|-------------------|------------|---|--|--|--|
| Drying            |            |   |  |  |  |
| Temperature       | 80°C       | Varies depending on initial moisture content, dryer efficiency and relative humidity.   |  |  |  |
| Time              | > 4 hours  |   |  |  |  |
| Temperature Range |            |   |  |  |  |
| Cylinder 1        | 195℃       | Suggested for the reference. The range may vary slightly depending on the machine used for the process.  Depending on the type of main resin used and the kind of final product (size, thickness, etc.), appropriate processing condition should be chosen for the best result. |  |  |  |
| Cylinder 2        | 190℃       |   |  |  |  |
| Cylinder 3        | 185℃       |   |  |  |  |
| Adapter           | 180°C      |   |  |  |  |

<sup>\*</sup>Conditions varies greatly depending on the Extruder machine.