

# EMAC® SP2252

Ethylene Methyl Acrylate Copolymer

Westlake Chemical Corporation

## Message:

EMAC resins adhere to and are compatible with a wide range of materials including paper, polyolefins, oriented polyolefins, polyesters, ionomers, PVdC, unplasticized PVC and other polar polymers. For use as heat seal layer, adhesive layer, or modifier for cost/performance enhancement. They are soft, pliable and tough at ambient and freezing temperatures and exhibit excellent ESCR. These polymers exhibit high solids fillability and compatibility with a wide range of polymers. This facilitates their use as bases for all-purpose concentrates for addition to a wide spectrum of polymers. They process like LDPE.

| General Information                       |                                  |                   |             |
|---|----------------------------------|-------------------|-------------|
| Features                                  | Copolymer                        |                   |             |
|   | Good Toughness                   |                   |             |
|   | High ESCR (Stress Crack Resist.) |                   |             |
|   | Low Temperature Toughness        |                   |             |
|   | Soft                             |                   |             |
| Uses                                      | Film                             |                   |             |
|   | Medical/Healthcare Applications  |                   |             |
|   | Tie-Layer                        |                   |             |
|   | Tubing                           |                   |             |
| Agency Ratings                            | FDA 21 CFR 177.1340              |                   |             |
| Forms                                     | Pellets                          |                   |             |
| Processing Method                         | Film Extrusion                   |                   |             |
| Physical                                  | Nominal Value                    | Unit              | Test Method |
| Density                                   | 0.946                            | g/cm <sup>3</sup> | ASTM D1505  |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 0.70                             | g/10 min          | ASTM D1238  |
| Methyl Acrylate Content                   | 20.5                             | wt%               |             |
| Hardness                                  | Nominal Value                    | Unit              | Test Method |
| Durometer Hardness (Shore D)              | 35                               |                   | ASTM D2240  |
| Mechanical                                | Nominal Value                    | Unit              | Test Method |
| Tensile Strength <sup>1</sup> (Break)     | 14.0                             | MPa               | ASTM D638   |
| Tensile Elongation <sup>2</sup> (Break)   | 790                              | %                 | ASTM D638   |
| Films                                     | Nominal Value                    | Unit              | Test Method |
| Secant Modulus                            |                                  |                   | ASTM D882   |
| 1% Secant, MD : 38 µm, Blown Film         | 52.0                             | MPa               |             |
| 1% Secant, TD : 38 µm, Blown Film         | 49.0                             | MPa               |             |
| Tensile Strength                          |                                  |                   | ASTM D882   |
| MD : Break, 38 µm, Blown Film             | 23.0                             | MPa               |             |
| TD : Break, 38 µm, Blown Film             | 17.0                             | MPa               |             |

| Tensile Elongation                   |                     |      | ASTM D882   |
|--------------------------------------|---------------------|------|-------------|
| MD : Break, 38 µm,Blown Film         | 420                 | %    |             |
| TD : Break, 38 µm,Blown Film         | 680                 | %    |             |
| Dart Drop Impact (38 µm, Blown Film) | 360                 | g    | ASTM D1709A |
| Elmendorf Tear Strength              |                     |      | ASTM D1922  |
| MD : 38 µm, Blown Film               | 46                  | g    |             |
| TD : 38 µm, Blown Film               | 290                 | g    |             |
| Seal Initiation Temperature          | 67.0                | °C   |             |
| Thermal                              | Nominal Value       | Unit | Test Method |
| Brittleness Temperature              | < -73.0             | °C   | ASTM D746   |
| Vicat Softening Temperature          | 54.0                | °C   | ASTM D1525  |
| Peak Melting Temperature             | 79.0                | °C   | ASTM D3418  |
| Optical                              | Nominal Value       | Unit | Test Method |
| Gloss (45°, 38.1 µm, Blown Film)     | 22                  |      | ASTM D2457  |
| Haze (38.1 µm, Blown Film)           | 30                  | %    | ASTM D1003  |
| NOTE                                 |                     |      |             |
| 1.                                   | Type IV, 500 mm/min |      |             |
| 2.                                   | Type IV, 500 mm/min |      |             |

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### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

