

# Braskem PE GM7040GCF

High Density Polyethylene

Braskem

## Message:

GM7040GCF is a High Density Polyethylene compound specially developed for the manufacturing of extruded pipes for gas pressurized line. It is produced with bimodal technology and has high molar mass. It shows high mechanical properties and has excellent resistance to hydrostatic pressure and stress cracking. The resin has MRS (Minimum Required Strength) of 8 MPa according to ISO 9080 and is classified as PE 80 according to ISO 12162. GM7040GCF is manufactured in yellow color with heavy metal free pigments, and contains additives to protect it against ultraviolet radiation action and photodegradation. Meets the requirements of NBR 14462:00 and ISO 4437:07.

### Application:

Yellow PE 80 pressure pipes for gas distribution; jacketing of underwater cables.

### Process:

Pipe Extrusion.

| General Information  |  |                   |             |
|--|--|-------------------|-------------|
| Additive   | UV stabilizer                          |                   |             |
| Features   | UV Stabilized                          |                   |             |
|  | High ESCR (Stress Cracking Resistance) |                   |             |
|  | High molecular weight                  |                   |             |
|  | Bimodal molecular weight distribution  |                   |             |
| Uses   | Cable sheath                           |                   |             |
|  | Piping system                          |                   |             |
| Agency Ratings   | ISO 12162 PE 80                        |                   |             |
|  | ISO 4427                               |                   |             |
|  | NBR 14462                              |                   |             |
| Appearance   | Yellow                                 |                   |             |
| Processing Method  | Pipeline extrusion molding             |                   |             |
| Physical   | Nominal Value                          | Unit              | Test Method |
| Specific Gravity   | 0.947                                  | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)   | 0.45                                   | g/10 min          | ASTM D1238  |
| Environmental Stress-Cracking Resistance (50°C, 2.00 mm, 100% Igepal, Compression Molded, F50) | > 1000                                 | hr                | ASTM D1693  |
| Hardness   | Nominal Value                          | Unit              | Test Method |
| Durometer Hardness (Shore D, Compression Molded)   | 62                                     |                   | ASTM D2240  |
| Mechanical   | Nominal Value                          | Unit              | Test Method |
| Tensile Strength   |  |                   | ASTM D638   |
| Yield, molding   | 23.0                                   | MPa               | ASTM D638   |
| Fracture, molding  | 37.0                                   | MPa               | ASTM D638   |
| Tensile Elongation   |  |                   | ASTM D638   |

|   |               |      |                         |
|---|---------------|------|-------------------------|
| Yield, molding  | 9.2           | %    | ASTM D638               |
| Fracture, molding   | 770           | %    | ASTM D638               |
| Flexural Modulus - 1% Secant<br>(Compression Molded)                            | 1080          | MPa  | ASTM D790               |
| Impact  | Nominal Value | Unit | Test Method             |
| Notched Izod Impact (Compression<br>Molded)                                     | 240           | J/m  | ASTM D256               |
| Thermal   | Nominal Value | Unit | Test Method             |
| Deflection Temperature Under Load (0.45<br>MPa, Unannealed, Compression Molded) | 68.0          | °C   | ASTM D648               |
| Vicat Softening Temperature   | 122           | °C   | ASTM D1525 <sup>1</sup> |
| NOTE  |               |      |                         |

1. 压力1 (10N)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### 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

