

## 67580 Special Gum G 1650

Special Gum G 1650 polymers are for applications that require high strength, UV resistance and heat stability.

Special Gum G 1650 polymers offer a broad range of performance characteristics that make them ideally suited for the production of coatings and gels. These firm-forming polymers are UV, ozone and oxidation resistant, strippable, protective, high friction, waterproof, sound deadening and shatter retentive.

G 1650 polymers are suitable for solution or melt processing, and can be formulated with other polymers, resins, fillers, pigments, oils, thickeners, waxes and stabilizers to obtain a desired balance of properties. G 1650 G polymers are particularly well-suited for use as oil thickeners in oil gel compounds for filling communication cables. Properties include high tensile strength, elongation, resilience, flexibility and rebound.

### Specifications:

Property	Specification	Method
Bound Styrene <sup>[a]</sup>	27.7 – 30.7 %mass	BMS0407
Volatile matter	0.5 %mass (max.)	KM04
Ash	0.4 – 0.6 %mass (ES)	ISO 247-B
Total extractables	1.0 %mass (max.)	KM05
Solution viscosity <sup>[b]</sup>	1.0 – 1.9 Pa.s	BMS0380
Antioxidant content <sup>[c]</sup>	0.03 %mass (min.)	KM08

<sup>[a]</sup> Measured on the polymer after the hydrogenation.

<sup>[b]</sup> Measured on 20% mass solution in toluene at 25°C using a Brookfield viscometer, LTF or LTV model.

<sup>[c]</sup> Primary phenolic antioxidant

### Typical Properties:

Property	Specification	Method
Specific gravity	0.91	ISO 2781
Tensile strength <sup>[c]</sup>	35 mPa	ISO 37
Elongation at break <sup>[c]</sup>	500 %	ISO 37
300 % modulus <sup>[c]</sup>	5.6 mPa	ISO 37

<sup>[c]</sup> Measured on films cast from a solution in toluene.

### End Use Requirements

If the finished article is intended for use in food contact and packaging applications, toys, or human contact areas, manufacturers of the final product should observe all relevant regulations. Some of these regulations require tests to be carried out on the final product, e.g. migration. These are the responsibility of the final product manufacturer.

### **Medical, Healthcare and Cosmetic Applications and Trademark Usage**

G 1650 polymers should not be used in any devices or materials intended for implantation in the human body as defined by the U.S. Food and Drug Administration und 21 CFR 812.3(d) and 21 CFR 860.3(d).

G 1650 polymers may, in certain circumstances, be used in the following products or applications with prior written approval for each specific product or application:

- a. Cosmetic (exclusive of packaging or delivery applications).
- b. Drugs and other Pharmaceuticals (exclusive of packaging or delivery applications).

G 1650 polymers trade names, trademarks, logos or other similar identifying characteristics should not be used in the manufacture, sale, or promotion of cosmetics, drugs, and pharmaceutical products or other medical/healthcare applications or materials.

G 1650 polymers has no specific expertise in these markets and applications, and does not intend to perform testing, clinical studies or other investigations of the suitability of its products for specific applications.

Each customer or user of G 1650 polymers products is solely responsibility for determining the suitability of the materials it selects for the intended purpose and acknowledges that it has not relied on any representatives of G 1650 polymers regarding suitability for use in its intended cosmetics, drugs, pharmaceutical products or materials.

### **Safety and Handling Precautions**

G 1650 polymers, products and compounds can accumulate electrostatic charges when rubbed, chafed or abraded. Processing and storage equipment for use should provide a means of dissipating any charges that may develop. When processing G 1650 polymers products, maintain a fire watch if the material reaches 280°C (536°F) for Special Gum G 1650 (polymers and compounds). The temperatures listed above are indicated only for safety reasons (risk of fire and product degradation) and are not necessarily recommended for processing. Degradation of the polymer (polymer breakdown) will start at lower temperatures depending on the specific processing conditions. Therefore, operating below these temperatures does not guarantee the absence of product degradation.

G 1650 polymers products (the neat resin or the base product) are high molecular weight polymers which are non-toxic and biologically inactive.

### ***Varnish Recipe:***

67260	Regalrez <sup>®</sup> 1094	100 g
67580	Special Gum G 1650	2 g
78152	Tinuvin <sup>®</sup> 292	2 g
70471	Shellsol <sup>®</sup> D 40	800 g
70503	Xylol	100 g