



# Terratek® SC

## Product Description

**Terratek® SC50** is a proprietary blend of wheat starch and polypropylene for injection molding applications. SC 50 contains 50% wheat starch by weight, however, a range of properties can be achieved by altering the starch to plastic ratio and by the inclusion or admission of other additives. Formulations containing anywhere from 30% to 65% starch are available upon request.

<u>Property</u>	<u>Test Method</u>	<u>Value</u>
Specific Gravity	ASTM D792	1.096 g/cm <sup>3</sup>
Shrinkage		0.011 in/in
Melt Index (230C 2.16kg)	ASTM D1238	31.1 g/10 min
Tensile Strength	ASTM D638	4,174 psi
Tensile Modulus	ASTM D638	375,826 psi
Flex Strength	ASTM D790	7,893 psi
Flex Modulus	ASTM D790	330,592 psi
Elongation		2.17 %
Notched Izod	ASTM D256	0.44 ft lb/in

## General Processing Conditions

**Green Dot's Terratek® SC50** resin needs to be dried before processing if the moisture is above 0.5%. Resin will dry quickly at 220°F in a desiccant dryer. Avoid prolonged resin exposure to air during molding or storage as the material can pick up moisture.

For best molding results, larger gates and runners are recommended. The injection pressure required to fill the mold is much higher than typical injection molding grade plastics. Typical injection molding temperatures are listed below, these are only a guide and may need to be changed based on the particular application:

Rear	350°F to 360°F
Middle	350°F to 360°F
Front	360°F to 375°F
Nozzle	360°F to 375°F
Mold	60°F to 170°F

The melt temperature of the resin should remain below 400°F to prevent the material from discoloring and having a burnt odor.

## Packaging and Storing

**Terratek® SC50** resin is typically packaged in a sealed plastic-lined Gaylord at 1200 lbs/Gaylord. The product should be stored in a cool, dry, and sanitary area to achieve maximum stability.

The information and recommendations in this sheet are based on our experience and analysis using standard procedures, and are believed to be accurate and reliable. However, they serve merely as typical guides, and are presented in good faith for the benefit of our customers. No guarantee, expressed or implied, is made regarding accuracy of the analysis, patent infringement, liabilities, or risks involved from the application of our products.	Issued:	3/11/10
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