



# Technical Data Sheet

## PLASTIFLAKE 1161

### Performance Features:

Plastiflake 1161 Flake Shell Resin is a medium melt point resin developed for use in general purpose applications. The following product features characterize this resin;

- Environmentally Friendly
  - Low Free Phenol
  - Lower Emissions
  - Lower Odors Emitted During Coating
  - Lower Odors Emitted During Core and Mold Making
  - Fast Cycle Times

### Product Description:

Plastiflake 1161 is a low free phenol, medium melt point flake resin developed for use in the shell process (Croning Process) for producing foundry cores and molds. This resin is used to coat shell sand using the hot coating process. In general terms, this process involves the following steps;

- a) Heat sand to 280 – 310 ° F.
- b) Add flake resin and mull for 60 – 90 seconds.
- c) The heated sand and resin mix is quenched with a water solution of hexamethylenetetramine (hexa).
- d) The hexa level used may be varied to impart specific properties to the coated sand, but is typically about 15% based on resin weight.
- e) Mull until sand dries out and breaks down.
- f) Discharge after breakdown. Normal discharge temperature is 150 – 170 ° F.

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## **Typical Properties**

<b>Appearance</b>	Opaque Yellow-amber Solid
<b>Free Phenol, %</b>	< 1.0
<b>Melt Point, deg. F</b>	215 *
<b>Hot Tensiles, 3 min.</b>	415 *

\*Marked properties are tested on coated sand, using 3.0% resin on round grain, washed and dried silica sand. Results are obtained using Borden Chemical's equipment and test procedures. Actual results may vary from these values, dependent upon the procedures and equipment used.

## **Storage Guidelines**

Borden #1161 Shell Flake Resin has indefinite storage life when stored properly. Care should be taken to avoid high temperature and humidity in order to minimize caking during storage.

## **Safe Handling**

Chemically resistant gloves and eye protection should be used when handling or using chemical binders. Material Safety Data Sheets are available for all products. Drum labels also contain handling information

## **Technical Service**

Proper selection of a binder system that meets your specific needs is key to achieving maximum performance benefits. Borden Chemical, Inc. provides in-depth technical assistance and a wide range of shell flake resins for your use in a variety of applications. Both our in-house and field experts are available to assist you with your most challenging foundry applications. Please contact your Borden Chemical, Inc. representative so that we may assist you in putting together a binder system and foundry team that will help you achieve your goals.

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**HA International LLC**

**“The Best Total Solution”**

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