

## 59960 Phenolic Resin – Hollow Beads

Phenolic hollow beads are phenolic microspheres which can offer special functions when added into grinding wheels. They help in enhancing the performance of grinding wheels as well as the manufacturing. Applications include soft grade grinding wheels for fine polishing and mirror finishing.

### Features

Act as a spacer during grinding

- Stabilize the wheel dimension from slumping during curing process
- Allow control of abrasive power
- Micron level finishing

### Typical Formulation

Component	Parts by weight*
Thermosetting binder (such as powdered phenolic resin)	10 – 30
Abrasive grains	60 – 90
Fillers	0 – 15
Solvent solution	5 – 35
Phenolic Hollow Beads	20 - 35

\* The information presented, including technical data and typical formulation, are based on tests and data which the manufacturer believes to be reliable and are intended for guidance only. The information is not to be taken as a warranty or representation for which we assume legal responsibility nor as permission or recommendation to practice any patented invention without license.

Particle size:	0005 - 0127 mm
Liquid density:	0.21 – 0.25 g/ml
Apparent density:	42.3 g / 500 ml
Moisture content:	1.81 %
Floatation in toluene-surfactant solution:	96.0 %

### Method:

The phenolic hollow beads are wetted by mixing with the solvent solution. The binder is then added in small portions until well distributed. Care should be taken to avoid as much as possible any crushing of the phenolic hollow beads. It is then placed in a mould and pressed to shape. The moulded wheel is then removed from the mould and subjected to oven baking for drying and curing. The baking temperature depends on the resin used.

**Important note:**

The phenolic hollow beads are not light stable and are therefore only recommended for applications where they are not exposed to light. Light exposure can lead to a light brown discoloration. The product should be stored in the dark.



Sample of phenolic hollow beads exposed to light since 2014 (on the left) and sample stored in the dark (on the right). 06/2022.