

Perlkat[®] 46-10 Spheres

Silica-alumina gel as catalyst substrate

BASF offers a unique spherical silica-alumina gel designed to provide catalyst manufacturers with a substrate tailored to meet their specific needs.

Description

Perlkat[®] 46-10, a bead shaped, amorphous silica gel with high alumina content, has been commercially successfully applied as a catalyst support for many years.

The choice of the support is crucial for heterogeneous catalysis. Perlkat[®] 46-10 allows a fine dispersion of the active catalytic species on the surface of the support.

Support materials for heterogeneous catalysis are characterized by their pore structure. Perlkat[®] 46-10 has a pore size distribution which allows the free transport of the reaction species and products to and from the active sites. Perlkat[®] 46-10 high specific surface area and pore volume underline its superior suitability as a catalyst support.

Perlkat[®] 46-10 silica-alumina gel has a high content of alumina which ensures beneficial effects in catalytic applications.

The spherical shape also provides good void space and flow distribution through the catalyst bed.

The availability of various bead sizes allows optimization of the pressure drop.

Product Benefits

- Superior pore structure
- High aluminum content
- Spherical form
- Different bead sizes

Packaging

- 1000 L bags
- 200 L steel drums

Chemical Composition

SiO ₂ , wt %	> 90
Aluminum as Al ₂ O ₃ , wt %	~ 5
Sodium, wt %	< 0.1
Sulfate, wt %	< 0.1

Physical Properties

Packed Bulk Density, g/cm ³	~ 0.7
Crushing Strength, N/bead	> 100
Attrition Rate, wt %	< 0.1
Water Resistance	Yes

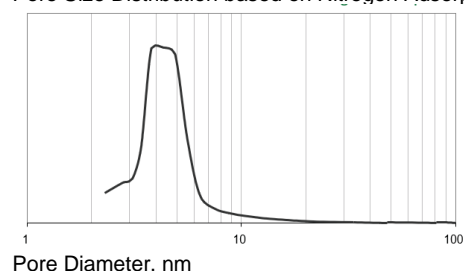
Pore Structure Characteristics

Surface Area, m ² /g	360
Pore Volume, cm ³ /g	0.44

Bead Sizes

1 – 4 mm or 1 – 3 mm	1 – 4 mm or 1 – 3 mm
Others available upon request	

Pore Size Distribution based on Nitrogen Adsorption



About Us

BASF is a leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain. The business comprises chemical catalysts and adsorbents, refinery catalysts and custom catalysts. In the process catalysts business, priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

The division's portfolio also includes battery materials and recycling solutions, as well as environmental catalysts and metal solutions. Customers from a variety of industries including Automotive & Transportation, Chemicals, Plastics or Energy & Resources benefit from our innovative solutions. Further information on BASF's Catalysts division is available on the Internet at www.catalysts.basf.com.

BASF - We create chemistry

Americas

BASF Corporation
Phone: +1-732-205-5000
Email: catalysts-america@basf.com

Asia Pacific

BASF (China) Company Limited
Phone: +86-21-2039 2549
Email: catalysts-asia@basf.com

Europe, Middle East, Africa

BASF Services Europe GmbH
Phone: +49-30-20055000
Email: catalysts-europe@basf.com

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