

PAL M-400

High density pseudoboehmite alumina

BASF PAL M-400 is a wide pore, high density pseudoboehmite alumina.

Description

BASF PAL M-400 is a pseudoboehmite alumina, also known as an aluminum monohydrate, $\text{AlO}(\text{OH})$. It is produced as a dry white powder with excellent fluidization characteristics. The powder is easily dispersed by most mulling operations. Extruded products exhibit good strength and high attrition resistance with predictable pore volume distribution.

Applications

Product uses vary among chemical, abrasive, and catalyst manufacturers. Outstanding properties include high purity (see chemical composition), reactivity, and excellent binding/bond formation. When heated to approximately 450-500°C, BASF PAL M-400 is converted into high porosity, high surface area gamma alumina.

Safety & handling

BASF PAL M-400 alumina is classified as nontoxic nuisance dust and does not produce significant organic diseases or toxic effect with reasonable exposure. Normal good housekeeping and operating procedures should ensure personnel safety. The data contained herein are for general informational purpose only. Please refer to the material safety data sheet for specific, complete information regarding these products.

Available Packaging

- 1000 kg super sacks

Chemical composition (wt %), typical

Al_2O_3	70
Na_2O	<0.02
SO_4	<0.45
LOI (1000°C)	25-33

Physical properties, typical

Aluminaphase	Pseudoboehmite
Loose bulk density (as is), kg/m^3	650-750
Surface area, m^2/g (1 hr @ 550°C)	320
Nitrogen pore volume (1 hr @ 550°C)	0.65
d50, microns	28-34

Temperature transformations - As PAL M-400 is heated the following transformations occur:

@ 250°C	PAL M-400	→	Non-dispersible PSB
@ 350-450°C	Non-dispersible	→	Gamma alumina
@ 800-900°C	Gamma	→	Delta/theta alumina
@ 1000-1100°C	Theta	→	Alpha conversion begins
@ 1300-1600°C	Alpha (porous)	→	Sintered alpha alumina

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, adsorbents and custom catalysts. Priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

BASF's chemical catalysts and adsorbents business is part of the company's Performance Chemicals division. The division's portfolio also includes refinery catalysts, fuel and lubricant solutions, as well as oilfield chemicals and mining solutions. Customers from a variety of industries including Chemicals, Plastics, Consumer Goods, Energy & Resources and Automotive & Transportation benefit from our innovative solutions.

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