

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

Alumina phase	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's Catalysts division is the world's leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics and other products, including advanced battery materials. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF's Catalysts division develops unique, proprietary solutions that drive customer success.

BASF - We create chemistry

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