

# NanoSelect™ Pt

## Pt-210

BASF's Pt-210 is a carbon powder based catalyst containing 0.8wt% of platinum and 0.3wt% of molybdenum as unimodal, highly dispersed, and reduced metal crystallites. The catalyst is supplied as a water-wet paste but can also be supplied in dry form.

NanoSelect catalysts are characterized by unimodal metal particles on the nanometer scale. Nanotechnology is science and controlled engineering on the scale of nanometers (billionths of a meter). Reducing the size of metal particles to nanometers:

- Greatly increases the metal surface area available per gram.
- Boosts the catalytic activity.
- Demonstrates different catalytic behavior.

BASF used these basic principles to develop the innovative, patented NanoSelect technology. This technology utilizes a BASF reagent to combine reducing and stabilizing functions that produce highly unimodal, nano-sized metal colloids. These colloids can be deposited onto different support materials giving heterogeneous catalysts showing unique catalytic behaviors.

BASF NanoSelect Pt catalysts have specifically been designed to deliver high activity at low metal content while showing very high selectivity in the hydrogenation reaction.

### Suggested Applications

BASF's Pt-210 catalyst is recommended for use in selective hydrogenation of nitro groups while preventing the buildup of the potentially explosive hydroxylamine intermediate. In addition, this catalyst has been shown to be very efficient in the selective reduction of nitro groups in molecules also containing other functional groups like ketones, nitriles and halides as they are typically not affected by this catalyst.

### Availability

Research quantities are available by order through Strem Chemicals, Inc. on the web at [www.strem.com/basf](http://www.strem.com/basf). Commercial quantities are available directly from BASF by calling one of the following regional offices:

- + 1 973-245-7447 (Americas)
- + 39 064-199-2605 (EMEA)
- + 86 21-2039-2549 (Asia Pacific)

#### Typical Properties

Active metal	Pt
Metal content, wt%	0.8
Type	Reduced, water-wet
Support	Carbon powder
Mean particle size	23 micron

## 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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