



ATP[®]-R12

water-based, boron nitride paste

Description

A water-based, boron nitride lubricating paste formulated for mold release, melting, casting, ceramic hot pressing, decanning for hot isostatic-pressing, composite forming, glass forming, superplastic forming of titanium, diffusion bonding, extrusions, & braze stop-off applications

Performance Characteristics

- effective temp. range
 - oxidizing ambient-1562° F (850° C)
 - inert/vacuum ambient-3272° F (1800° C)
- anti-sticking agent
- demonstrates superb, high temperature lubrication
- chemically inert
- resistance to molten metals, weld splatter, molten salts, braze alloys, and glass
- excellent stability for improved shelf life
- formulated for brushing application (can be adjusted for dipping or spraying by diluting with deionized water – do not thin coating too much)

Recommendations for Use

- some mixing may be required
- all surfaces must be free of dirt, oil, grease, metal oxides, and other materials
- coating thickness depends on the time and temperature of exposure (generally, the higher the temperature and longer exposure, the thicker the coating should be applied)
- the wet film thickness will depend on how the coating will be used; for boronizing, 15-20 mils should be optimal
- ensure bottom coat is thoroughly dried when applying multiple coats
- water-based coatings need ample time to completely dry before entering furnace (can be applied over preheated substrate to accelerate drying time)
- **WARNING:** Do not contact wet layers /coatings with molten metal

Typical Properties

Binding System	bentonite
Relative Hardness	4
pH	7.0-8.0
% Solids	30-50
Vehicle	Water

Viscosity (@ 25°C) as Supplied (Brookfield, cP)	25,000-35,000
Weight/Gallon (lb/gal)	12.00 ± 0.25
Color	white
Shelf Life (months)	>12

Product Safety

Before handling the materials listed in this bulletin, read and understand the product MSDS (Material Safety Data Sheet) for additional information on personal protective equipment and for safety, health, and environmental information.

No chemical should be used as or in a food, drug, medical device, or cosmetic, or in a product or process in which it may contact a food, drug, medical device, or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user’s responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

Advanced Technical Products Supply Co., Inc. requests that the customer read, understand, and comply with the information contained in this publication and the current MSDS(s). The customer should furnish the information in this publication to its employees, contractors, and customers, or any other users of the product(s), and request that they do the same.

Storage and Handling

ATP®-R12 should be stored indoors in the original unopened and undamaged container, in a dry place at a temperature not exceeding 85° F (30° C). Exposure to direct sunlight should be avoided.

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