

ARMEX® Blast Media
Hydroflex® Formula XL
Product Code 69061
NSN 5350-01-424-2265

Page 1 of 5

ARMEX® Blast Media, Hydroflex® Formula XL is specially formulated for use with the WADU® Soluble Media Injector. The media is based on sodium bicarbonate (baking soda) which is a natural, water soluble, inorganic compound with a soft crystalline structure that makes it an ideal, mild abrasive. The media can be used to clean and remove virtually any coating from almost any substrate. It provides significantly improved grease/oil removal and rinsing properties, resulting in a cleaner surface vs. traditional methods.

Key Features and Benefits

- Optimized crystal size significantly improves cleaning & depainting performance
- Patented degreasing action provides for heavy-duty removal of greases and oils
- Patented rinsing properties provides a cleaner surface
- Free flowing qualities reduce flow problems associated with other baking soda-based blast medias
- Water soluble - eliminates media residue concerns; simplifies clean-up & disposal; less solid waste generated
- Safe to use on virtually any substrate, including delicate surfaces, rotating equipment & moving parts
- Ideal for NDT/NDI preparation - does not remove metal
- Contains no free silica and is nonflammable resulting in significant worker safety advantages
- Contains no solvents or caustic chemicals - reduced air pollution
- USDA-approved as an A-1 cleaner and suitable for use in FDA-regulated facilities

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Page 2 of 5

Information on Ingredients

- The media contains sodium bicarbonate that meets USP (United States Pharmacopeia) standards and typically has less than 50 ppm each of chloride & sulfate ions.
- The media contains a flow aid that has a surface area greater than 220 m²/gm for greatly improved flow properties.
- The media contains patented degreasing and rinse additives for greatly improved grease removal and rinsing performance

Particle Size

- The media has an optimized particle size distribution as follows:
- Retained on 40 mesh sieve (425 microns): 8% max.
- Retained on 60 mesh sieve (250 microns): 60% min.
- Retained on 100 mesh sieve (150 microns): 70% min.
- Retained on 200 mesh sieve (75 microns): 80% min.
- Retained on 325 mesh sieve (45 microns): 90% min.

Rinsing Properties

A carbon steel coupon was dipped into a slurry (under agitation) containing 0.15% dirty motor oil and 50% blast media. The coupon was then rinsed with fresh water.

Blast Media Type	Rinsing Characteristics	Amount of Grease/Oil Deposited
Hydroflex® Formula XL	Water sheets off metal surface, indicating absence of grease/oil.	Not Detectable
Competitive Blast Media	Water beads on metal surface, visible grease/oil left behind	>0.1 gm/ft ²

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NSN 5350-01-424-2265

Page 3 of 5

Flow Characteristics

Flow characteristics of the media were determined using a Hosokawa Powder Tester and results are summarized in the table below. Any media that has a total flowability index of more than 80 is considered to have very good flow properties.

Type of Test (Max. Score)	Flowability Index (Typical Values)
Angle of Repose (25)	17-19
Compressibility (25)	22-23
Angle of Spatula (25)	20-21
Uniformity (25)	23-24
Total (100)	82-87

Corrosion Data

Aluminum and carbon steel coupons were immersion tested in saturated solutions at 120 F for 14 days. Corrosion rates of the media were found to be significantly lower than those of distilled water.

Product	Immersion Corrosion Rate (mils/yr.)		
	AL-7075	AL-5050	CS-1020
Distilled Water	1.15	1.11	9.0
ARMEX® Blast Media	0.25	0.20	0.17

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NSN 5350-01-424-2265

Page 4 of 5

Paint Adhesion

New carbon steel panels were blasted, rinsed, and dried. The panels were then coated with two coats of Tnemec Series 66 Hi-Build Epoxy paint and passed the following paint adhesion tests:

Elcometer Adhesion Test (ASTM D-4541)

All panels exceeded the 1,000 psi min. specified by Tnemec.

Measuring Adhesion By Tape Test (ASTM D-3359)

All panels were classified 5B, indicating no flaking of the paint.

Typical Operating Conditions

The media is specially formulated for use with the WADU® Soluble Media Injector. Typical operating conditions are summarized as follows:

Water Pressure:	1,500-4,000 psi (102-272 bars)
Media Flow Rate:	0.5-3 lbs/min. (0.2-1.4kg/min.)
Water Flow Rate:	3-5 gpm (11.4-18.9 liters/min.)

Packaging

The media is packaged in 50-lb (22.7 kg) multi-walled bags with tuck-in sleeve valves.

Safety

ARMEX® Blast Media has an excellent health and safety profile. It presents minimal risk to workers from either short term acute exposure or long term (chronic or subchronic) exposure. Please refer to MSDS for details.

Testing and Approval

- USDA approved as A-1 cleaner
- Suitable for use in FDA-regulated facilities
- ISO 9002 certified

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Product Code 69061
NSN 5350-01-424-2265

Page 5 of 5

General Properties

Appearance.....White crystalline powder

Bulk Density..... 60 lbs/ft² (1 g/cc)

Taste.....Slightly alkaline

Specific Gravity.....2.2

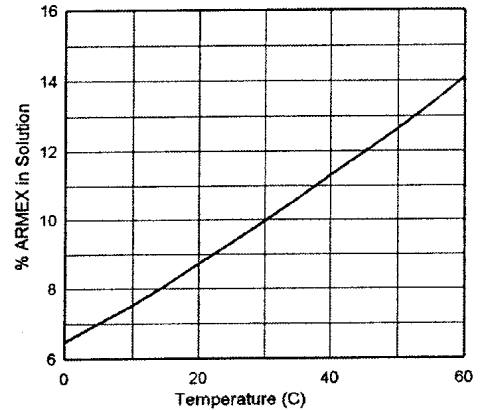
Solubility in Water.....See Figure 1

Solubility in Alcohol.....Insoluble

pH (8% solution)..... 8.2

Mohs Hardness.....2.5

Figure 1 Solubility in Water



Patents

ARMEX® Blast Media - Hydroflex® Formula XL is covered by the following patents:

US Patent #'s 5,081,799; 5,083,402; 5,407,379; 5,588,901; 5,308,403; 5,338,323

For additional information, please call 1-800-221-0453.

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