

ARMEX® Blast Media
Flow Formula M
Product Code 69721

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ARMEX® Blast Media, Flow Formula M is specially formulated for use with the ACCUSTRIP SYSTEM™ Delivery Devices. 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. This media contains our premium moisture control system (MoistureGuard™ 8) which coats each crystal making it virtually waterproof. It is recommended when there are moisture related flow problems associated with high humidity environments and air supplies.

Key Features and Benefits

- Optimized crystal size significantly improves cleaning & depainting performance
- Free flowing qualities reduce flow problems associated with other baking soda-based blast medias
- Contains MoistureGuard™ 8 for the greatest water tolerance - 8 times greater than baking soda alone
- 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
- Nontoxic & nonhazardous as defined by EPA & OSHA
- Contains no free silica, is nonflammable and is nonsparking* 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

** Will not cause thermal sparks when striking the workpiece. Equipment must be grounded and bonded to prevent electrostatic discharge.*

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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.

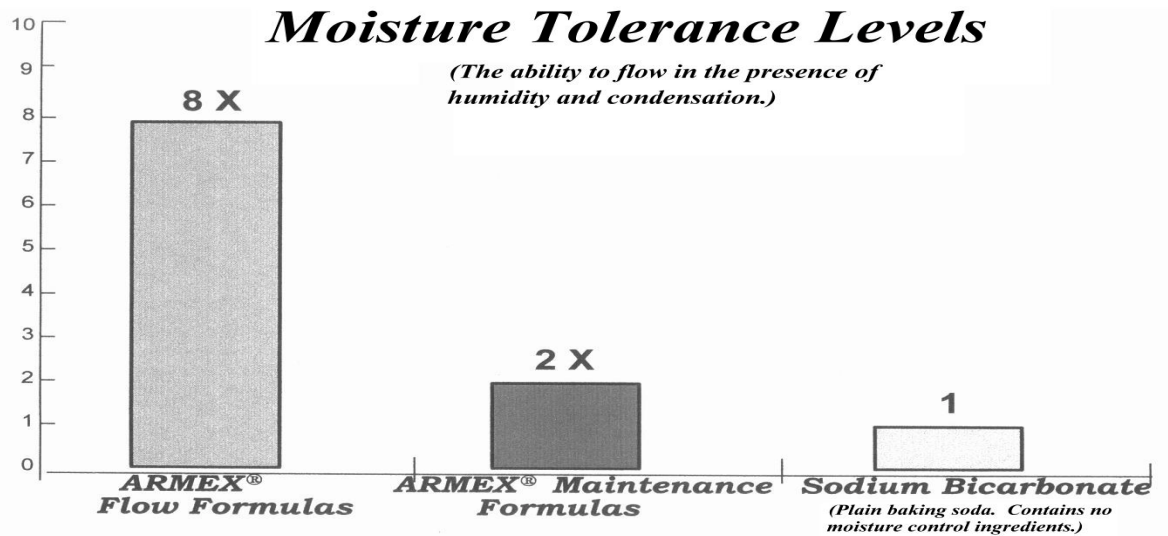
Particle Size

The media has an optimized particle size distribution as follows:

- Retained on 60 mesh sieve (250 microns): 8% max.
- Retained on 100 mesh sieve (150 microns): 55% min.
- Retained on 170 mesh sieve (90 microns): 93% min.

Moisture Tolerance

Flow Formula M has MoistureGuard™ 8 which increases the tolerance of the ARMEXBlast Media to moisture as shown in the graph below.



This chart depicts the relative moisture tolerance of ARMEX Maintenance Formulas, ARMEX Flow Formulas and plain baking soda

ARMEX Maintenance Formulas contain MoistureGuard 2 allowing them to tolerate twice (2X) as much moisture as plain baking soda.
ARMEX Flow Formulas contain MoistureGuard 8 allowing them to tolerate eight times (8X) as much moisture as plain baking soda.

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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
Flow Formula M	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

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)	18-20
Compressibility (25)	23
Angle of Spatula (25)	19-21
Uniformity (25)	23-24
Total (100)	83-88

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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.

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

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 ACCUSTRIP SYSTEM™ Delivery Devices. Typical operating conditions are summarized as follows:

Air Pressure: 10-100 psi (0.7-7 bar)
Air Volume: 100-300 cfm (2,800-8,500 liters/min.)
Media Flow Rate: 0.5-3 lbs/min. (0.2-1.4 kg/min.)
Water Flow Rate: 0-2 gpm (0-7.6 liters/min.)

Packaging

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

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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

General Properties

Appearance.....White crystalline powder

Bulk Density..... 60 lbs/ft² (1 g/cc)

Taste.....Slightly alkaline

Specific Gravity.....2.2

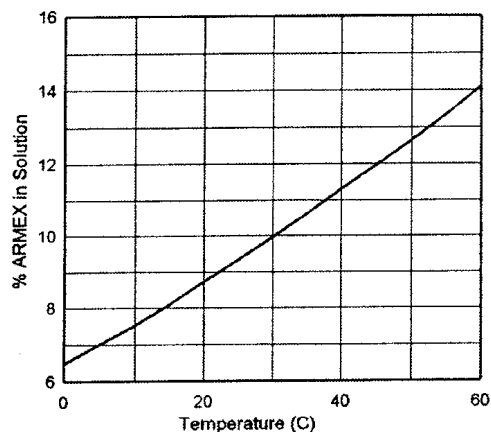
Solubility in Water.....See Figure 1

Solubility in Alcohol.....Insoluble

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

Mohs Hardness.....2.5

Figure 1 Solubility in Water



Patents

ARMEX® Blast Media, Flow Formula M is covered by the following patents:

US Patent #'s 5,081,799; 5,083,402; 5,160,547; 5,230,185;
5,308,403; 5,316,587; 5,338,323.

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

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