

ARMEX® Blast Media <u>Turbine Formula</u> <u>Product # 69081 and 69881</u> 20015529, 20015551

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ARMEX® Blast Media - Turbine Formula is specially formulated for use with the baking soda based delivery devices. The media is based on sodium bicarbonate (baking soda) which is a natural, water soluble, inorganic compound. The media contains about 10% hard abrasive and can be used to remove rust, mill scale and any hard to remove coating. It can also be used to achieve a white metal surface on steel, but its particle size is designed for minimal metal removal. This is useful for corrosion removal on sensitive metal substrates. Additionally, it provides superior rinsing properties resulting in a cleaner surface vs. traditional methods.

Key Features and Benefits

- Optimized crystal size significantly improves cleaning & depainting performance
- Removes rust, mill scale and any hard to remove coatings
- Achieves a white metal surface on steel
- Minimal metal removal for corrosion removal on sensitive metal substrates
- Free flowing qualities reduce flow problems associated with other baking soda-based blast medias
- 90% water soluble reduces waste volume and disposal costs
- Nontoxic & nonhazardous as defined by EPA & OSHA
- Contains no free silica and is nonflammable* resulting in significant worker safety advantages
- Contains no solvents or caustic chemicals reduced air pollution

* Caution: may cause thermal sparks when striking the work piece. Not for use in potentially explosive or flammable areas.

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Information on Ingredients

- Contains sodium bicarbonate that meets USP (United States Pharmacopeia) standards and typically has less than 50 ppm each of chloride & sulfate ions.
- Contains proprietary hard abrasive for heavy duty depainting and surface preparation
- Contains a flow aid that has a surface area greater than 220 m²/gm for greatly improved flow properties
- Contains a patented rinse aid system to aid in the rinsing of spent media and process residues from the surface

Particle Size

The media has an optimized particle size distribution as follows:

- Retained on 140 mesh sieve (106 microns): 7% max.
- Retained on 200 mesh sieve (75 microns): 42% max.
- Retained on 325 mesh sieve (45 microns): 78% min.
- Retained on 400 mesh sieve (38 microns): 87% min.

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)	18-20
Uniformity (25)	23-24
Total (100)	82-87

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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 baking soda based delivery devices Typical operating conditions are summarized as follows:

Air Pressure:	10-120 psi (0.7-8.3 bar)
Air Volume:	10-300 cfm (282-8,500 liters/min)
Media Flow Rate:	0.25-3 lbs/min. (0.1-1.4kg/min.)
Water Flow Rate:	0-2 gpm (0-7.6 liters/min.)

Packaging

The media is packaged in 50-lb and 25-kg multi-walled bags.

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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

* ISO 9002 certified

General Properties

Appearance......White crystalline powder w/ Brown particles

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 (9 for hard abrasive additive)



For additional information, please call 1-800-332-5424.

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