ADM **Product Data Sheet**

ENVIROStrip® Plus

(wheat starch media)

AVIATION GRADE (Code 1611)

GENERAL DESCRIPTION

ENVIROStrip® wheat starch media is a 100% natural dry stripping media that is non-toxic and biodegradable. Careful processing and stringent quality control procedures guarantee a uniform product of high purity.

ENVIROStrip® wheat starch media is available in several product mesh sizes. The PLUS grade is used for many applications including stripping of metal and composite surfaces. This product is preferred for situations where an all-purpose mesh size is preferred, facilitating media size management. On initial use, ENVIROStrip® PLUS strips faster than 12/30 or 30/50 size grades.

PHYSICAL & CHEMICAL SPECIFICATIONS

Appearance	Clear, white media sized 0.18 mm to 1.18 mm
Density (g/cm^3)	1.45 ± 0.10
Bulk Density (kg/m^3)	641 – 769 (40 – 48 lb/ft^3)
Mesh (US Std), min.	20% on 20 mesh
min.	25% on 30 mesh
	15-25% on 40 mesh
max.	7% through 80 mesh
Hardness	80 ± 10 shore, D scale

PACKAGING

ENVIROStrip® PLUS wheat starch media is available in 90-kg (198.4-lb) polyethylene-lined fiberboard drums and 500-kg (1102-lb) polyethylene-lined corrugated boxes.

APPLICATION DEVELOPMENT

ENVIROStrip® PLUS may be the ideal stripping process for your operation. Request a sample for process or laboratory evaluation.

ADM's Test Center and technical support team are available to tailor ENVIROStrip® wheat starch media's performance to your specific needs.

APPLICATION

ENVIROStrip® PLUS was specifically engineered as a paint-removal abrasive media for delicate aircraft surfaces. For removal of most polyurethane topcoat and epoxy primer paint schemes from metal or composite surfaces, the ENVIROStrip® PLUS operating window is summarized in the following tables.

(U.S. Standard Measurements)

ALUMINUM ALLOYS (≥ 0.032-inch thick)[1]

	(3/8-inch nozzle)	(1/2-inch nozzle)
Nozzle Pressure (psi)	**25 – 40**	**25 – 40**
Media Flow Rate (lb/min)	**5 – 8**	**10 – 16**
Stand-off Distance (inches)	**3 – 8**	**4 – 12**
Impingement Angle (degrees)[2]	**40 – 60**	**40 – 60**
Paint Removal Rate (ft^2/min)[3]	**0.2 – 0.6**	**0.4 – 1.2**

(Metric Units)

	(9.5 mm nozzle)	(12.7 mm nozzle)
Nozzle Pressure (bar)	**1.7 – 2.7**	**1.7 – 2.7**
Media Flow Rate (kg/min)	**2.3 – 3.6**	**4.5 – 7.3**
Stand-off Distance (cm)	**8 – 19**	**10 – 30**
Impingement Angle (degrees) [2]	**40 – 60**	**40 – 60**
Paint Removal Rate (m^2/hr) [3]	**1.1 – 3.3**	**2.2 – 6.7**

1. For aluminum alloys 0.63 mm (0.025-inch) and thinner, 1.4 – 1.7 bar (20 – 25 psi) nozzle pressure and 7.3 – 8.2 kg/min (16-18 lb/min) media flow rates are recommended.
2. The optimum angle for removing most polyurethane/epoxy primer coatings is 45° while blast angles greater than 70° are less efficient.
3. Paint removal rates are dependent on the condition of the coating and operator skill.

(U.S. Standard Measurements)

COMPOSITES

	(3/8-inch nozzle)	(1/2-inch nozzle)
Nozzle Pressure (psi)	**20 - 30**	**20 - 30**
Media Flow Rate (lb/min)	**5 - 8**	**10 - 16**
Stand-off Distance (inches)	**3 - 10**	**4 - 18**
Impingement Angle (degrees) [1]	**20 - 40**	**20 - 40**
Paint Removal Rate (ft^2/min) [2]	**0.2 - 0.4**	**0.3 - 0.8**

(Metric Units)

	(9.5 mm nozzle)	(12.7 mm nozzle)
Nozzle Pressure (bar)	**1.4 – 2.0**	**1.4 – 2.0**
Media Flow Rate (kg/min)	**2.3 – 3.6**	**4.5 – 7.3**
Stand-off Distance (cm)	**8 – 25**	**10 – 45**
Impingement Angle (degrees) [1]	**20 – 40**	**20 – 40**
Paint Removal Rate (m^2/hr) [2]	**1.1 – 2.2**	**1.7 – 4.5**

1. A lower angle (20 – 40°) is preferred for stripping composites in order to minimize substrate effects.
2. Paint removal rates are dependent on the condition of the coating and operator skill.

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