

# TRAMFLOC, INC.

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## Technical Information Bulletin

### TRAMFLOC® ESM100 ACTIVATED ALUMINA

#### **Product Description**

ESM-100 Activated Alumina has high surface area, exceptional purity and possesses low bulk density.

#### **Uses**

ESM-100 Activated Alumina is used in the treatment of both potable and wastewater as a scavenger of free fluoride. Other uses include chemical processing, as a filtration medium, as a desiccant for liquids and gases, and a scavenger of both organic and free fluoride in an alkylate stream. ESM-100 Activated Alumina can also serve as arsenic removal media, although there are other grades of Tramfloc Activated Alumina which may be more suitable. Please consult Tramfloc for Arsenic removal information.

#### **Grades Available**

7 x 12 mesh	(1.4 mm – 2.8 mm, 1/16 inch nominal)
5 x 8 mesh	(2.4 mm – 4.0 mm, 1/8 inch nominal)
4 x 6 mesh	(3.3 mm – 4.7 mm, 5/32 inch nominal)
3 x 6 mesh	(3.3 mm – 6.7 mm, 3/16 inch nominal)
¼”	(4.7 mm – 7.9 mm)
½” x ¼”	(6.4 mm – 12.7 mm, 5/16 inch nominal)
½”	(9.5 mm – 15.9 mm)

#### **Chemical Analysis (Dry Basis)**

	<u>Typical</u>
SiO <sub>2</sub>	0.02 wt-%
Fe <sub>2</sub> O <sub>3</sub>	0.02 wt-%
Na <sub>2</sub> O	0.35 wt-%
Al <sub>2</sub> O <sub>3</sub>	93.6 wt-%
Loss on ignition	6.0 wt-%

#### **Physical Properties (5 x 8 Mesh Spheres)**

	<u>Typical</u>	<u>Typical Range</u>
Surface area	350 m <sup>2</sup> /gm	320 – 380 m <sup>2</sup> /gm
Bulk density, packed	42 lb/ft <sup>3</sup> (673 kg/m <sup>3</sup> )	37 – 45 lb/ft <sup>3</sup> (5930 – 721 kg/m <sup>3</sup> )
Crushing strength	23 lb <sub>f</sub> 11 kg <sub>f</sub>	18 – 27 lb <sub>f</sub> 9 – 13 kg <sub>f</sub>
Abrasion loss	0.6 wt%	0.1 – 0.9 wt%

#### **Screen Sizing**

	<u>Typical</u>	<u>Typical Range</u>
Oversize	2 wt-%	0 - 5 wt-%
Undersize	2 wt-%	1 - 5 wt-%

#### **Packaging Information**

AA ESM Series Activated Alumina is available in 250 lb. steel drums and in 2,205 lb. sacks.

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