

FEATURES & BENEFITS

MATRIX® glassy phase promoters are produced from nepheline syenite, a naturally occurring sodium potassium alumina silicate. The higher total contribution of alumina, alkalis, and silicates combined with lowest possible levels of impurities make MATRIX an efficient and cost effective means of fluxing the glass batch.

The lower melting eutectic of nepheline syenite permits batch engineers to lower the temperature at which liquid forms during firing, or increase the rate of pull with the confidence of a thorough and complete reaction with other components. In addition to its operating advantages, MATRIX will stabilize and strengthen container and flat glass, and produce clearer glass without additives or decolorizers in applications where color controls are critical.

All MATRIX grades are processed and sized with rigid adherence to Covia QIPSM statistical and quality assurance programs. The result is consistently uniform chemistries, size distributions, and top size controls for optimal performance in the glass furnace.

PARTICAL SIZE ANALYSIS

Typical Mean Values. These Do Not Represent A Specification.

	Mesh Size			MATRIX® Grades		
	ASTM E-11	MIRCONS	330*	333	340*	343
Typical mean % retained on individual sieves	25	710µ	-	-	-	-
	30	600µ	0.1	0.1	-	-
	40	425µ	3.6	8.7	0.3	0.3
	50	300µ	26.2	33.4	23.0	20.8
	100	160µ	50.2	46.3	50.5	49.7
	200	75µ	17.9	9.7	23.3	25.2
	-200	-75µ	2.2	1.9	2.9	4.0

PHYSICAL PROPERTIES

Typical Mean Values. These Do Not Represent A Specification.

MATRIX® Glass Grades		
Free Silica Content	<0.1%	X-Ray Diffraction
pH Value	10.1	AFS 113-87-5
Melting Point	1868°F/1020°C	ASTM C-24
Bulk Density, Loose	83-87 lb/ft ³	ASTM C-29
Specific Gravity	2.61 g/cm ³	ASTM C-128

CHEMICAL ANALYSIS

Typical Mean Values. These Do Not Represent A Specification.

	Typical Mean Percent by Weight			
	330	333	340	343
Silicon Dioxide (SiO ₂)	60.55	59.90	60.07	59.69
Aluminum Oxide (Al ₂ O ₃)	23.30	23.30	23.60	23.50
Iron Oxide (Fe ₂ O ₃)	0.09	0.33	0.09	0.33
Calcium Oxide (CaO)	0.42	0.65	0.42	0.49
Magnesium Oxide (MgO)	0.02	0.07	0.02	0.06
Sodium Oxide (Na ₂ O)	10.31	10.22	10.36	10.27
Potassium Oxide (K ₂ O)	4.90	4.90	5.0	5.1
Loss on Ignition (LOI)	0.47	0.69	0.50	0.54

*Exists in a complex of albite, microcline and nepheline.

SHIPPING/ORDERING INFORMATION

- Shipping Point: Nephton/Blue Mountain, Ontario
- Originating Carrier: Canadian Pacific (CP Rail)
- Availability: Bulk Only
*330 and 340 available in Bulk, IBC, 50 lb Paper Bags
Truck and Rail

CUSTOMER SERVICE

US & Canada: 1-800-243-9004

Fax: 1-800-243-9005

Worldwide: 1-203-442-2500

Fax: 1-203-972-1378

3 Summit Park Drive, Suite 700, Independence, OH 44131 | CoviaCorp.com

GRADE NUMBERS INDICATE RELATIVE VALUES OR RESULTS. THEY ARE NOT A SPECIFICATION OR WARRANTY OF PERFORMANCE.

HEALTH HAZARD WARNING: Prolonged inhalation of dust associated with the materials described in this data sheet can cause delayed lung injury. Avoid creating dust when handling, using or storing. Follow OSHA Safety and Health Standards for fugitive dust. Current safety data sheet, containing safety information, is available and should be consulted before usage.

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Nepheline Syenite Containing

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