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Technical Data

PYRAX[®] MP

Pyrophyllite

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PYRAX[®] MP

Pyrophyllite

PYRAX MP Pyrophyllite, mined in Robbins, NC, is a siliceous high alkali aluminosilicate containing the platy minerals pyrophyllite, sericite and kaolin.

PYRAX MP offers the following distinct advantages:

- It assists in the formation of mullite at relatively low firing temperatures. The interlocking grain structure of mullite results in greatly increased fired strength.
- It allows fast-fire capabilities since it has very low thermal expansion.
- It reduces pyroplastic deformation if used instead of feldspar and nepheline syenite.

General Properties:

Crystallinity:	Laminar to semi-massive
Color	Variable
Workability	Nonplastic
>200 Mesh	<3%
Moisture	<0.5%
Median Size	12 micrometers
PCE	17 to 21

Typical Chemistry*:

Al ₂ O ₃	12-18%
SiO ₂	76-82%
K ₂ O	0.7-3.0%
Na ₂ O	0.2-0.6%
Fe ₂ O ₃	0.5-1.0%
TiO ₂	0.2%
LOI	1.9-3.3%

*calculated as oxides

Typical Mineralogy:

Pyrophyllite	Al ₂ Si ₄ O ₁₀ (OH) ₂	10-40%
Sericite	KAl ₃ Si ₃ O ₁₀ (OH) ₂	5-25%
Kaolin	Al ₂ Si ₂ O ₅ (OH) ₄	5%
Quartz*	SiO ₂	45-60%

*Percent minus 10 μm α-quartz (respirable fraction) is <2% of the total product.

Typical Particle Size Distribution*:

<u>Micrometers</u>	<u>% Finer Than</u>
40	95
20	70
10	45
1	5

*SediGraph; sedimentation

Applications:

Wall and floor tile
 Brick and brick coatings
 Sanitaryware bodies
 Stoneware bodies
 Low and intermediate temperature refractories (e.g., insulating firebrick)
 Glazes

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high quality minerals and chemicals,
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