

INSULATING CASTABLES

DELTA t CRETE BLOCK MIX

DELTA t CRETE 18

DELTA t CRETE 20-35

DELTA t CRETE 20-LI

DELTA t CRETE 20

DELTA t CRETE 20-M

DELTA t CRETE 22

DELTA t CRETE 22-LI

DELTA t CRETE 23-M

DELTA t CRETE 23-M-LI

DELTA t CRETE 25

DELTA t CRETE 26-LI

DELTA t CRETE 26-M

DELTA t CRETE 28

DELTA t CRETE 30

DELTA t CRETE 33

FIBERCAST 72

PRODUCT

DELTA † CRETE BLOCK MIX
EXTREMELY LIGHTWEIGHT CASTABLE
BLOCK INSULATION

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	1600°F
ASTM C-401	None
Lbs. Required Dry Mix Per Cu. Ft.	23 lbs.
% Water by Weight Required for Casting	150%
Bulk Density After Drying at 230°F	25 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	70 - 100 psi
MOR After Drying at 230°F	30 - 55 psi
<u>Permanent Linear Change</u>	
After Drying at 230°F	Negligible
After Heating to 1500°F	-0.5 to -1.4%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	43.3%
Alumina	[Al ₂ O ₃]	7.8%
Iron Oxide	[Fe ₂ O ₃]	2.0%
Lime	[CaO]	39.4%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	0.51
At 1000°F	0.73

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

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PRODUCT

DELTA t CRETE 18

LIGHTWEIGHT INSULATING CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	1800°F
ASTM C-401	Class N
Lbs. Required Dry Mix Per Cu. Ft.	45 lbs.
% Water by Weight Required for Casting	Approx. 70%
Bulk Density After Drying at 230°F	52 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	400 - 650 psi
MOR After Drying at 230°F	100 - 160 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.3%
After Heating to 1700°F	-0.2 to -1.0%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	42.3%
Alumina	[Al ₂ O ₃]	30.4%
Iron Oxide	[Fe ₂ O ₃]	6.9%
Lime	[CaO]	15.4%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	1.3
At 1000°F	1.4
At 1500°F	1.6

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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PRODUCT
DELTA t CRETE 20-35
LIGHTWEIGHT CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2000°F
ASTM C-401	Class O
Lbs. Required Dry Mix Per Cu. Ft.	30 lbs.
% Water by Weight Required for Casting	Approx. 100%
Bulk Density After Drying at 230°F	35 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	150 - 250 psi
MOR After Drying at 230°F	49 - 90 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.4%
After Heating to 1800°F	0.1 to -0.8%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	41.5%
Alumina	[Al ₂ O ₃]	33.6%
Iron Oxide	[Fe ₂ O ₃]	7.2%
Lime	[CaO]	14.2%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	1.0
At 1000°F	1.2
At 1500°F	1.4

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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PRODUCT
DELTA t CRETE 20-LI

**LOW IRON,
LIGHTWEIGHT INSULATING CASTABLE**

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2000°F
ASTM C-401	Class O
Lbs. Required Dry Mix Per Cu. Ft.	33 lbs.
% Water by Weight Required for Casting	Approx. 95%
Bulk Density After Drying at 230°F	38 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	250 - 350 psi
MOR After Drying at 230°F	60 - 110 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.2%
After Heating to 1900°F	-0.4 to -1.4%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	43.1%
Alumina	[Al ₂ O ₃]	41.1%
Iron Oxide	[Fe ₂ O ₃]	0.3%
Lime	[CaO]	12.6%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	1.0
At 1000°F	1.2
At 1500°F	1.4

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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PRODUCT

DELTA t CRETE 20

LIGHTWEIGHT INSULATING CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2000°F
ASTM C-401	Class O
Lbs. Required Dry Mix Per Cu. Ft.	50 lbs.
% Water by Weight Required for Casting	Approx. 62%
Bulk Density After Drying at 230°F	56 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	450 - 750 psi
MOR After Drying at 230°F	110 - 180 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.2%
After Heating to 1900°F	-0.2 to -1.3%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	40.4%
Alumina	[Al ₂ O ₃]	32.8%
Iron Oxide	[Fe ₂ O ₃]	6.6%
Lime	[CaO]	15.9%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	1.4
At 1000°F	1.5
At 1500°F	1.7

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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PRODUCT

DELTA t CRETE 20-M

HIGH STRENGTH, INSULATING CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2100°F
ASTM C-401	Class P
Lbs. Required Dry Mix Per Cu. Ft.	62 lbs.
% Water by Weight Required for Casting	Approx. 35%
Bulk Density After Drying at 230°F	67 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	600 - 1050 psi
MOR After Drying at 230°F	200 - 280 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.5%
After Heating to 1900°F	-0.3 to -0.9%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	35.0%
Alumina	[Al ₂ O ₃]	39.1%
Iron Oxide	[Fe ₂ O ₃]	7.4%
Lime	[CaO]	17.0%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	2.1
At 1000°F	2.3
At 1500°F	2.7

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

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PRODUCT

DELTA t CRETE 22

LIGHTWEIGHT INSULATING CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2200°F
ASTM C-401	Class P
Lbs. Required Dry Mix Per Cu. Ft.	56 lbs.
% Water by Weight Required for Casting	Approx. 45%
Bulk Density After Drying at 230°F	60 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	500 - 800 psi
MOR After Drying at 230°F	120 - 200 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.6%
After Heating to 2100°F	-0.2 to -1.0%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	37.5%
Alumina	[Al ₂ O ₃]	36.9%
Iron Oxide	[Fe ₂ O ₃]	4.9%
Lime	[CaO]	16.1%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	1.4
At 1000°F	1.7
At 1500°F	1.9

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

SPECIALTY REFRACTORIES COMPANY • Pittsburgh, Pa. 15127 •

PRODUCT
DELTA t CRETE 22-LI

**LOW IRON,
LIGHTWEIGHT INSULATING CASTABLE**

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2200°F
ASTM C-401	Class P
Lbs. Required Dry Mix Per Cu. Ft.	45 lbs.
% Water by Weight Required for Casting	Approx. 70%
Bulk Density After Drying at 230°F	51 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	450 - 700 psi
MOR After Drying at 230°F	130 - 210 psi
<u>Permanent Linear Change</u>	
After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to 0.1%
After Heating to 2100°F	-0.5 to -1.4%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	47.2%
Alumina	[Al ₂ O ₃]	39.4%
Iron Oxide	[Fe ₂ O ₃]	0.5%
Lime	[CaO]	10.7%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	1.3
At 1000°F	1.7
At 1500°F	2.0

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

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PRODUCT

DELTA t CRETE 23-M

HIGH STRENGTH, INSULATING CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2300°F
ASTM C-401	Class Q
Lbs. Required Dry Mix Per Cu. Ft.	75 lbs.
% Water by Weight Required for Casting	Approx. 30%
Bulk Density After Drying at 230°F	80 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	900 - 1600 psi
MOR After Drying at 230°F	250 - 360 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.5%
After Heating to 2300°F	-0.6 to -1.1%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	41.7%
Alumina	[Al ₂ O ₃]	34.9%
Iron Oxide	[Fe ₂ O ₃]	3.9%
Lime	[CaO]	15.5%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	2.3
At 1000°F	2.5
At 1500°F	2.8

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

SPECIALTY REFRACTORIES COMPANY • Pittsburgh, Pa. 15127 •

PRODUCT

DELTA t CRETE 23-M-LI

**LOW IRON, LIGHTWEIGHT
HIGH STRENGTH CASTABLE**

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2300°F
ASTM C-401	Class Q
Lbs. Required Dry Mix Per Cu. Ft.	70 lbs.
% Water by Weight Required for Casting	Approx. 32%
Bulk Density After Drying at 230°F	76 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	750 - 1500 psi
MOR After Drying at 230°F	175 - 300 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.5%
After Heating to 2300°F	-0.6 to 1.1%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	42.8%
Alumina	[Al ₂ O ₃]	43.5%
Iron Oxide	[Fe ₂ O ₃]	1.4%
Lime	[CaO]	11.8%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	2.1
At 1000°F	2.4
At 1500°F	2.7

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

SPECIALTY REFRACTORIES COMPANY • Pittsburgh, Pa. 15127 •

PRODUCT
DELTA t CRETE 25

LOW IRON,
LIGHTWEIGHT, INSULATING CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2500°F
ASTM C-401	Class R
Lbs. Required Dry Mix Per Cu. Ft.	50 lbs.
% Water by Weight Required for Casting	Approx. 55%
Bulk Density After Drying at 230°F	54 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	270 - 500 psi
MOR After Drying at 230°F	90 - 150 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.3%
After Heating to 2300°F	0.4 to 2.1%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	37.2%
Alumina	[Al ₂ O ₃]	48.4%
Iron Oxide	[Fe ₂ O ₃]	0.9%
Lime	[CaO]	12.4%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	1.4
At 1500°F	1.9
At 2000°F	2.3

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

2806



MT. SAVAGE

SPECIALTY REFRACTORIES COMPANY • Pittsburgh, Pa. 15127 •

PRODUCT
DELTA t CRETE 26-LI

**LOW IRON,
LIGHTWEIGHT, INSULATING CASTABLE**

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2600°F
ASTM C-401	Class R
Lbs. Required Dry Mix Per Cu. Ft.	50 lbs.
% Water by Weight Required for Casting	Approx. 55%
Bulk Density After Drying at 230°F	54 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	270 - 500 psi
MOR After Drying at 230°F	90 - 150 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.3%
After Heating to 2500°F	0.4 to 2.4%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	37.2%
Alumina	[Al ₂ O ₃]	53.1%
Iron Oxide	[Fe ₂ O ₃]	0.6%
Lime	[CaO]	7.1%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	1.4
At 1500°F	1.9
At 2000°F	2.3

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

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PRODUCT

DELTA t CRETE 26-M

**LIGHTWEIGHT, HIGH STRENGTH
FIRECLAY CASTABLE**

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2600°F
ASTM C-401	Class R
Lbs. Required Dry Mix Per Cu. Ft.	78 lbs.
% Water by Weight Required for Casting	Approx. 30%
Bulk Density After Drying at 230°F	81 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	780 - 1110 psi
MOR After Drying at 230°F	260 - 370 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.5%
After Heating to 2500°F	0.0 to -0.9%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	43.3%
Alumina	[Al ₂ O ₃]	44.1%
Iron Oxide	[Fe ₂ O ₃]	1.6%
Lime	[CaO]	7.9%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	2.4
At 1500°F	2.6
At 2000°F	3.0

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

SPECIALTY REFRACTORIES COMPANY • Pittsburgh, Pa. 15127 •

PRODUCT

DELTA t CRETE 28

LIGHTWEIGHT INSULATING CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2800°F
ASTM C-401	Class S
Lbs. Required Dry Mix Per Cu. Ft.	85 lbs.
% Water by Weight Required for Casting	Approx. 28%
Bulk Density After Drying at 230°F	89 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	800 - 1250 psi
MOR After Drying at 230°F	200 - 350 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.3%
After Heating to 2700°F	0.5 to 0.9%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	41.1%
Alumina	[Al ₂ O ₃]	50.8%
Iron Oxide	[Fe ₂ O ₃]	0.9%
Lime	[CaO]	5.0%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	3.1
At 1500°F	3.6
At 2500°F	4.8

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

SPECIALTY REFRACTORIES COMPANY • Pittsburgh, Pa. 15127 •

PRODUCT

DELTA t CRETE 30

LIGHTWEIGHT INSULATING CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	3000°F
ASTM C-401	Class U
Lbs. Required Dry Mix Per Cu. Ft.	87 lbs.
% Water by Weight Required for Casting	Approx. 29%
Bulk Density After Drying at 230°F	91 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	780 - 1050 psi
MOR After Drying at 230°F	260 - 350 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to -0.2%
After Heating to 2900°F	0.2 to 1.6%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	34.5%
Alumina	[Al ₂ O ₃]	58.8%
Iron Oxide	[Fe ₂ O ₃]	0.8%
Lime	[CaO]	4.0%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	3.0
At 1500°F	3.6
At 2500°F	5.8

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

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PRODUCT

DELTA t CRETE 33

HIGH PURITY BUBBLE ALUMINA CASTABLE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	3300°F
ASTM C-401	Class V
Lbs. Required Dry Mix Per Cu. Ft.	93 lbs.
% Water by Weight Required for Casting	Approx. 25%
Bulk Density After Drying at 230°F	98 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	1500 - 2500 psi
MOR After Drying at 230°F	500 - 550 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	Negligible
After Heating to 3200°F	0.0 to -0.5%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	0.36%
Alumina	[Al ₂ O ₃]	92.7%
Iron Oxide	[Fe ₂ O ₃]	0.02%
Lime	[CaO]	6.8%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	6.1
At 1500°F	5.0
At 2500°F	5.2

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE

SPECIALTY REFRACTORIES COMPANY • Pittsburgh, Pa. 15127 •

PRODUCT
FIBERCAST 72

**FIBER REINFORCED LIGHTWEIGHT CASTABLE
(CONTAINS NO ASBESTOS)**

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2400°F
ASTM C-401	Not Classified
Lbs. Required Dry Mix Per Cu. Ft.	80 lbs.
% Water by Weight Required for Casting	Approx. 30%
Bulk Density After Drying at 230°F	87 lbs./cu.ft.
Cold Crushing Strength After Drying at 230°F	700 - 1100 psi
MOR After Drying at 230°F	350 - 475 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	0.0 to 0.2%
After Heating to 1600°F	0.1 to 0.4%

CHEMICAL ANALYSIS

Silica	[SiO ₂]	32.7%
Alumina	[Al ₂ O ₃]	50.5%
Iron Oxide	[Fe ₂ O ₃]	1.2%
Lime	[CaO]	13.6%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	2.6
At 1000°F	2.9

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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