



SPECIFICATION

INORGANIC CHEMICALS

ZINC OXIDE, ZnO

OZIDE 10R

For Rubber Manufacture

Miscellaneous Properties

Method

Appearance	White Powder, Grayish Cast	50j
Specific Gravity	5.57	50b
Screen Analysis (Residue 325 Mesh)	0.1% Max.	50f

Chemical Analysis

Zinc Oxide, ZnO, Min.	98.5 % <i>78.832</i>	50A
Lead, Pb, Max.	0.34 %	50K
Copper, Cu, Max.	0.003%	50C
Manganese, Mn, Max.	0.002%	50D
Total Copper Plus Manganese	0.004%	
Cadmium, Cd, Max.	0.005%	50L
Iron, Fe, Max.	0.040%	50B
Sulfur, as SO ₃	Max. 0.25 % - Min. 0.05%	50P
Water Soluble Salts, Max.	0.5 %	50Q

Serial No. 96

August 1, 1971

90.8%

0007-PMC-000000996



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Oxide (ZnO)

OZIDE 10R

For Rubber Manufacture

Miscellaneous Properties

Appearance	White Powder, Grayish Cast
Specific Gravity	5.57
Screen Analysis	
Residue 325 Mesh	0.05%

Chemical Analysis

Zinc Oxide, ZnO	98.8 %
Lead as Pb	0.15 %
Copper, Cu	0.0025%
Manganese, Mn	0.0008%
Cadmium, Cd	0.002 %
Iron, Fe	0.025 %
Sulfur as SO ₃	0.10 %
Water Soluble Salts	0.15 %

May 17, 1971

0007-PMC-000000997



SPECIFICATION

INORGANIC CHEMICALS

ZINC OXIDE, ZnO

OZIDE 10RD

Surface Treated

For Rubber Manufacture

Miscellaneous Properties

Method

Appearance	White Powder, Grayish Cast	50j
Specific Gravity	5.57	50b
Screen Analysis, Residue 325 Mesh	0.1% Max.	50f

Chemical Analysis

Zinc Oxide, ZnO, Min.	98.5 %	50A
Lead, Pb, Max.	0.34 %	50K
Copper, Cu, Max.	0.004%	50C
Manganese, Mn, Max.	0.002%	50D
Total Copper plus Manganese	0.004%	
Cadmium, Cd, Max.	0.005%	50L
Iron, Fe, Max.	0.040%	50B
Sulfur, as SO ₃ , Max. 0.25%, Min. 0.05%		50P
Water Soluble Salts, Max.	0.5%	50Q

Serial No. 95

August 5, 1971

0007-PMC-000000998



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Oxide Zinc Oxide (ZnO)

OZIDE LORD

For Rubber Manufacture

Miscellaneous Properties

Appearance	White Powder - Grayish Cast
Specific Gravity	5.57
Screen Analysis 325 Mesh Residue	0.05%

Chemical Analysis

Zinc Oxide, ZnO	98.5 %
Lead as Pb	0.15 %
Copper as Cu	0.003 %
Manganese, Mn	0.0008%
Cadmium, Cd	0.002 %
Iron, Fe	0.025 %
Sulfur as SO ₃	0.10 %

Physical Properties

Treated with 0.75% propionic acid.
Cannot be easily water wetted
Somewhat dusty but easily dispersed in rubber formulations

May 17, 1971

0007-PMC-000000999



SPECIFICATION

INORGANIC CHEMICALS

ZINC OXIDE, ZnO

OZIDE 11R

For Rubber

Miscellaneous Properties

Method

Appearance	White Powder	50h
Specific Gravity	5.57	50b
Residue 325 Mesh, Max.	0.3%	50f

Chemical Analysis

Zinc Oxide, Min.	98.5 %	50A
Lead as Pb, Max.	0.7 %	50K1
Sulfur as SO ₃ , Max.	0.25 %	50P
Copper as Cu, Max.	0.003%	50C

Serial No. 50

August 1, 1971

0007-PMC-000001000



SPECIFICATION

INORGANIC CHEMICALS

ZINC OXIDE, ZnO

OZIDE 20

For General Use

Miscellaneous Properties

Method

Appearance	White Powder, Grayish Cast	50j
Specific Gravity	5.57	50b
Screen Analysis (Residue 325 Mesh)	0.3% Max.	50f
Color, Min.	60	50k

Chemical Analysis

Zinc Oxide, ZnO, Min.	98.5 %	50A
Lead, Pb, Max.	0.34%	50K

Serial No. 41

August 1, 1971

0007-PMC-000001001



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Oxide (ZnO)

OZIDE 20

For General Use

Miscellaneous Properties

Appearance	White Powder, Grayish Cast
Specific Gravity	5.57
Screen Analysis (Residue 325 Mesh)	0.09%

Chemical Analysis

Zinc Oxide, ZnO	98.8 %
Lead, Pb	0.3 %
Iron, Fe	0.025 %
Manganese, Mn	0.0008%
Cadmium, Cd	0.004 %

May 17, 1971

0007-PMC-000001002



SPECIFICATION

INORGANIC CHEMICALS

ZINC OXIDE, ZnO

OZIDE 20LP

For General Use

Miscellaneous Properties

Method

Appearance	White Powder, Grayish Cast	50j
Specific Gravity	5.57	50b
Screen Analysis, Residue 325 Mesh	0.09%	50f
Color, Min.	60	50k

Chemical Analysis

Zinc Oxide, ZnO	98.5%	50A
Lead, Pb	0.10%	50K

Serial No. 94

August 1, 1971

0007-PMC-000001003



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Oxide Zinc Oxide (ZnO)

OZIDE 20-LP

Miscellaneous Properties

Appearance	White Powder, Grayish Cast
Specific Gravity	5.57
Screen Analysis (325 Mesh Residue)	0.05%

Chemical Analysis

Zinc Oxide, ZnO	98.8 %
Lead, Pb	0.09 %
Iron, Fe	0.025 %
Manganese, Mn	0.0008%
Cadmium, Cd	0.004 %

May 17, 1971

0007-PMC-000001004



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Oxide

Ozide 30P - For Paint Usage

Miscellaneous Properties

Appearance	White Powder
Bulking Value	2.14 gals./100 lbs.
Screen, 325 Mesh, Wet	.1%
Oil Absorption (Gardner-Coleman)	11
Color (Based on Coffeyville Standards)	74

Chemical Analysis

Zinc Oxide	99.0%
Lead	0.1%

Pb

.01 projected

May 13, 1971

0007-PMC-000001005



SPECIFICATION

INORGANIC CHEMICALS

ZINC OXIDE, ZnO

Ozide 40

For Ceramic Use

Miscellaneous Properties

Method

Appearance	White Powder	50j
Specific Gravity	5.57	50b
Screen Analysis (Residue 325 Mesh)	0.3% Max.	50f
Tapped Density	Approx. 75 lbs./cu. ft.	50l

Chemical Analysis

Zinc Oxide, ZnO, Min.	98.5%	50A
Lead, Pb, Max.	0.34%	50K

Serial No. 102
September 21, 1971

0007-PMC-000001006



TYPICAL PROPERTIES

INORGANIC CHEMICALS

ZINC OXIDE, ZnO

Oxide 40

For Ceramic Use

Miscellaneous Properties

Appearance	White Powder
Specific Gravity	5.57
Screen Analysis (Residue 325 Mesh)	0.09%
Tapped Density	Approx. 75 lbs./cu. ft.

Chemical Analysis

Zinc Oxide, ZnO	98.8%
Lead, Pb	0.3%
Iron, Fe	0.025%
Manganese, Mn	0.0008%
Cadmium, Cd	0.004%

September 21, 1971

0007-PMC-000001007



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Leaded Zinc Oxide

OZLO RG

General Usage

Miscellaneous Properties

Appearance
Screen Analysis Residue 325 Tyler

Gray-White Powder
0.3%

Chemical Analysis

Zinc as Zn
Zinc as ZnO
Lead as Pb
Iron as Fe

73.0 %
91.0 %
6.0 % (60% PbSO₄ + 40% PbO)
.024%

May 17, 1971

0007-PMC-000001008



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Oxide (ZnO)

NUZIDE 20

For Agricultural Use

Miscellaneous Properties

Appearance	White Powder, Grayish Cast
Specific Gravity	5.57
Screen Analysis (Residue 325 Mesh)	0.09%

Chemical Analysis

Zinc Oxide, ZnO	98.8 %
Lead, Pb	0.3 %
Iron, Fe	0.025 %
Manganese, Mn	0.0008%
Cadmium, Cd	0.004 %

May 17, 1971

0007-PMC-000001009

TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Oxide (ZnO)

NUZIDE 70A

For Agricultural Soil Application

Miscellaneous Properties

Appearance

Yellow to Gray Powder

Chemical Analysis

Zinc as Zn	74.0 %
Zinc as ZnO	92.0 %
Lead as Pb	2.0 %
Sulfur as SO ₃	0.2 %
Iron as Fe ₂ O ₃	1.5 %
Copper as Cu	0.04%
Manganese as Mn	1.2 %
Calcium as CaO	2.0 %
Water Soluble Salts	0.85%

Screen Test

	<u>%</u>	<u>% Cumulative</u>
20 Mesh	15.3	15.3
48 Mesh	2.4	17.7
60 Mesh	10.0	27.7
80 Mesh	22.3	50.0
100 Mesh	18.6	68.6
150 Mesh	20.0	88.6
200 Mesh	4.0	92.6
250 Mesh	5.2	97.8
-250 Mesh	2.2	--

0007-PMC-000001010

May 17, 1971



SPECIFICATION

INORGANIC CHEMICALS

ZINC OXIDE, ZnO

NUZIDE 78S

For Agricultural Sprays

Miscellaneous Properties

Method

Appearance	White Powder, Grayish Cast	50h
Apparent Packed Bulk Density	Approx. 70 lbs./cu.ft.	50j
Screen Analysis (Residue 325 Mesh)	0.3% Max.	50f

Chemical Analysis

Zinc Oxide, ZnO, Min.	98.0%	50A
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Serial No. 97

August 1, 1971

0007-PMC-000001011



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Oxide (ZnO)

NUZIDE 78S

For Agricultural Sprays

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density
Screen Analysis (Residue 325 Mesh)

White Powder, Grayish Cast
Approximately 70 lbs./cu.ft.
0.1% Max.

Chemical Analysis

Zinc Oxide, ZnO

98.8%

May 17, 1971

0007-PMC-000001012



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Sulfate ($\text{ZnSO}_4 \cdot \text{H}_2\text{O}$)

GRADE 360-F

Fertilizer Grade
Fine Granule

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density
Screen Analysis
 Mesh (Tyler) %
 -20 100

White, granular
104 lbs./cu.ft.

Chemical Analysis

Zn

36.0%

May 17, 1971

0007-PMC-000001013



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Sulfate ($\text{ZnSO}_4 \cdot \text{H}_2\text{O}$)

GRADE 360-G

Fertilizer Grade
Coarse Granule

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density

White, granular
About 85 lbs./cu.ft.

Screen Analysis

Mesh (Tyler)	Cumulative %
+ 6	0
+ 8	21
+ 10	60
+ 14	87
+ 16	96
+ 20	98
- 20	2

Chemical Analysis

Zn 36%

May 17, 1971

0007-PMC-000001014



SPECIFICATION

INORGANIC CHEMICALS

ZINC SULFATE, $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$

GRADE 361-S

For General Application

Chemical Grade

Miscellaneous Properties

Method

Appearance	White Crystalline Powder	60i
Apparent Packed Bulk Density	Approx. 65 lbs./cu.ft.	60j

Chemical Analysis

Zinc as Zn, Min.	36.0 %	60A
Lead as Pb, Max.	0.004%	60B
Copper as Cu, Max.	0.001%	60C
Manganese as Mn, Max.	0.002%	60D
Cadmium as Cd, Max.	0.003%	60E
Iron as Fe, Max.	0.002%	60F
Nickel as Ni, Max.	0.001%	60N

Serial No. 46

August 1, 1971

0007-PMC-000001015



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Zinc Sulfate ($\text{ZnSO}_4 \cdot \text{H}_2\text{O}$)

GRADE 361-S

For General Application
Chemical Grade

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density

White Powder
Approximately 65 lbs./cu.ft.

Chemical Analysis

Zinc as Zn	36.3 %
Lead as Pb	0.002 %
Copper as Cu	0.0005%
Manganese as Mn	0.001 %
Cadmium as Cd	0.001 %
Iron as Fe	0.001 %
Nickel as Ni	0.0005%
Calcium as Ca	0.02 %
Chlorine as Cl	0.015 %

May 17, 1971

0007-PMC-000001016



SPECIFICATION

INORGANIC CHEMICALS

BARIUM CARBONATE, BaCO_3

Grade 45T

Special Fine Grade for General Use

Miscellaneous Properties

Method

Appearance	White	20a
Particle Size	Fisher No. 1.60, Max.	20c
Apparent Packed Bulk Density	Approx. 55 lbs./cu.ft.	20d
Specific Gravity	4.29	20g

Chemical Analysis

Total Ba + Sr as BaCO_3 , Min.	99.2 %	20A
Total Sulfur as S, Max.	0.10 %	20B
Sulfate Sulfur as S, Max.	0.10 %	20C
Sulfide-Sulfite Sulfur as S, Max.	0.01 %	20D
Iron as Fe, Max.	0.001%	20E

Serial No. 101

August 1, 1971

0007-PMC-000001017



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Barium Carbonate (BaCO_3)

GRADE 45T

Special Fine Grade for General Use

Miscellaneous Properties

Appearance
Particle Size
Apparent Bulk Density

White
Fisher No. 1.15 - 1.60
Approx. 55 lbs./cu.ft.

Chemical Analysis

Total Ba + Sr as BaCO_3
Total Sulfur as S
Sulfate Sulfur as S
Iron as Fe

99.4 %
0.06 %
0.06 %
0.0008%

May 17, 1971

0007-PMC-000001018



SPECIFICATION

INORGANIC CHEMICALS

BARIUM CARBONATE, BaCO_3

Grade 50F

For Ceramics

<u>Miscellaneous Properties</u>		<u>Method</u>
Appearance	White	20a
Apparent Packed Bulk Density	Approx. 50 lbs./cu.ft.	20d
Screen Analysis (through 150 mesh Tyler) Min.	99%	20e
Specific Gravity	4.29	20g
 <u>Chemical Analysis</u>		
Total Ba + Sr as BaCO_3 , Min.	98.5%	20A

Serial No. 31

August 1, 1971

0007-PMC-000001019



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Barium Carbonate (BaCO_3)

GRADE 50F

For Ceramics

Miscellaneous Properties

Appearance	White
Apparent Packed Bulk Density	Approximately 50 lbs./cu.ft.
Screen Analysis through 150 mesh Tyler	99%

Chemical Analysis

Total Ba + Sr as BaCO_3	99.1 %
Total Sulfur as S	0.06 %
Fe_2O_3	0.001%

May 17, 1971

0007-PMC-000001020



SPECIFICATION

INORGANIC CHEMICALS

BARIUM CARBONATE, BaCO_3

Grade 70F

For Ceramics

<u>Miscellaneous Properties</u>		<u>Method</u>
Appearance	White	20a
Apparent Packed Bulk Density	Approx. 70 lbs./cu.ft.	20d
Screen Analysis (through 150 mesh Tyler) Min.	99%	20e
Specific Gravity	4.29	20g
 <u>Chemical Analysis</u>		
Total Ba + Sr as BaCO_3 , Min.	98.5%	20A

Serial No. 32

August 1, 1971

0007-PMC-000001021



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Barium Carbonate (BaCO_3)

GRADE 70F

For Ceramics

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density
Screen Analysis through 150 mesh,
Tyler

White
Approx. 70 lbs./cu.ft.
99%

Chemical Analysis

Total Ba + Sr as BaCO_3
Total Sulfur as S
 Fe_2O_3

99.1 %
0.06 %
0.001%

May 17, 1971

0007-PMC-000001022



SPECIFICATION

INORGANIC CHEMICALS

BARIUM CARBONATE, BaCO_3

Grade 75C

For General Application

Miscellaneous Properties

		<u>Method</u>
Appearance	White	20a
Apparent Packed Bulk Density	Approx. 60 lbs./cu.ft.	20d
Specific Gravity	4.29	20g

Chemical Analysis

Total Ba + Sr as BaCO_3 , Min.	99.0 %	20A
Total Sulfur as S, Max.	0.10 %	20B
Sulfate Sulfur as S, Max.	0.07 %	20C
Sulfide-Sulfite Sulfur as S, Max.	0.06 %	20D
Iron as Fe, Max.	0.001%	20E

Serial No. 79

August 1, 1971

0007-PMC-000001023



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Barium Carbonate (BaCO_3)

GRADE 75C

For General Application

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density
Screen Analysis (through 150 mesh
Tyler)

White
Approx. 60 lbs./cu.ft.
99%

Chemical Analysis

Total Ba + Sr as BaCO_3	99.3	%
Total Sulfur as S	0.06	%
Sulfate Sulfur as S	0.03	%
Sulfide-Sulfite Sulfur as S	0.03	%
Fe	0.0008	%
SrCO_3	0.90	%
CaCO_3	0.16	%
Na_2O	0.08	%
Al_2O_3	0.13	%
Cl	0.008	%
Acid Insoluble ($\text{BaSO}_4 + \text{SiO}_2$)	0.30	%

May 17, 1971

0007-PMC-000001024



SPECIFICATION

INORGANIC CHEMICALS

BARIUM CARBONATE, BaCO_3

Grade 90F

For Ceramics

Miscellaneous Properties

Method

Appearance	White	20a
Apparent Packed Bulk Density	Approx. 90 lbs./cu.ft.	20d
Screen Analysis (through 150 Mesh Tyler) Min.	99%	20e
Specific Gravity	4.29	20g

Chemical Analysis

Total Ba + Sr as BaCO_3 , Min.	98.5%	20A
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Serial No. 33

August 1, 1971

0007-PMC-000001025



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Barium Carbonate (BaCO_3)

GRADE 90F

For Ceramics

Miscellaneous Properties

Appearance	White
Apparent Packed Bulk Density	Approx. 90 lbs./cu.ft.
Screen Analysis through 150 mesh, Tyler	99%

Chemical Analysis

Total Ba + Sr as BaCO_3	99.1 %
Total Sulfur as S	0.06 %
Fe_2O_3	0.001%

May 17, 1971

0007-PMC-000001026



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Barium Carbonate (BaCO_3)

GRADE 145G

For Glass Manufacture

Miscellaneous Properties

Appearance	White
Apparent Packed Bulk Density	Approx. 140 lbs./cu ft.
Screen Analysis, Cumulative, Tyler	
+ 14	5%
+ 20	10%
+ 28	35%
+ 48	60%
+ 100	75%
+ 150	80%
- 150	20%

Chemical Analysis

Total Ba + Sr as BaCO_3	98.6 %
Total Sulfur as S	0.06 %
Sulfate Sulfur as S	0.06 %
Fe	0.0008 %
SrCO_3	0.90 %
CaCO_3	0.16 %
Al_2O_3	0.13 %
Cl	0.008 %
Acid Insoluble	0.50 %

May 17, 1971

0007-PMC-000001027



SPECIFICATION

INORGANIC CHEMICALS

BARIUM CARBONATE, BaCO_3

Grade 145G

For Glass Manufacture

<u>Miscellaneous Properties</u>		<u>Method</u>
Appearance	White	20a
Apparent Packed Bulk Density	Approx. 140 lbs./cu.ft.	20d
Screen Analysis (through 150 Mesh Tyler) Max.	25%	20e
Specific Gravity	4.29	20g
 <u>Chemical Analysis</u>		
Total Ba + Sr as BaCO_3 , Min.	98.5 %	20A
Total Sulfur as S, Max.	0.10 %	20B
Sulfate Sulfur as S, Max.	0.10 %	20C
Sulfide-Sulfite Sulfur as S, Max.	0.01 %	20D
Fe, Max.	0.001%	20E
Acid Insoluble, Max.	0.7 %	20L

Serial No. 100

August 1, 1971

0007-PMC-000001028



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Barium Carbonate (BaCO_3)

GRADE 145G

For Glass Manufacture

Miscellaneous Properties

Appearance	White
Apparent Packed Bulk Density	Approx. 140 lbs./cu ft.
Screen Analysis, Cumulative, Tyler	
+ 14	5%
+ 20	10%
+ 28	35%
+ 48	60%
+ 100	75%
+ 150	80%
- 150	20%

Chemical Analysis

Total Ba + Sr as BaCO_3	98.6 %
Total Sulfur as S	0.06 %
Sulfate Sulfur as S	0.06 %
Fe	0.0008 %
SrCO_3	0.90 %
CaCO_3	0.16 %
Al_2O_3	0.13 %
Cl	0.008 %
Acid Insoluble	0.50 %

May 17, 1971

0007-PMC-000001029



SPECIFICATION

INORGANIC CHEMICALS

BARIUM MONOHYDRATE, $\text{Ba}(\text{OH})_2 \cdot \text{H}_2\text{O}$

For General Application

66

Miscellaneous Properties

Method

Appearance	White Dry Flakes	10a
Apparent Packed Bulk Density	Approx. 80 lbs./cu.ft.	10b

Chemical Analysis

Total Barium (weak acid soluble) as BaO	78.5 - 80.5%	10A
Acid Insoluble as BaSO_4	0.12 %	10B
BaCO_3 , Max.	0.8 %	10C
Cl, Max.	0.02 %	10D
S, Max.	0.02 %	10E
Fe, Max.	0.002%	10F

Serial No. 99

August 1, 1971

0007-PMC-000001030



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Barium Monohydrate, $\text{Ba}(\text{OH})_2 \cdot \text{H}_2\text{O}$

For General Application

Miscellaneous Properties

Appearance
Apparent Packed Bulk Density

White Dry Flakes
Approximately 80 lbs./cu.ft.

Chemical Analysis

Total Barium (weak acid soluble)
as BaO

BaSO_4

BaCO_3

Cl

S as Sulfide

Fe

79.0 %
0.08 %
0.5 %
0.01 %
0.006 %
0.001 %

May 17, 1971

0007-PMC-000001031



SPECIFICATION

INORGANIC CHEMICALS

PERMOLITH LITHOPONE

Grade 10N

Non-Reactive - Low Consistency

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	10	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	30e

Chemical Analysis

Zinc Sulfide, ZnS, Min.	28.0 %	30A
Zinc Oxide, ZnO, Max.	0.10%	30B
Barium Sulfate, Min.	95.0 % of Remainder	30C

Serial No. 78

August 1, 1971

0007-PMC-000001032



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Permolith Lithopone

GRADE 10N

Non-Reactive, Low Consistency

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh	0.10%
Oil Absorption	12
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5 %
Zinc Oxide, ZnO	0.06%
Barium Sulfate, Min.	95.0 % of Remainder

May 17, 1971

0007-PMC-000001033



SPECIFICATION

INORGANIC CHEMICALS

PERMOLITH LITHOPONE

Grade 20L

For General Accounts

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	12	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	30e

Chemical Analysis

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

Serial No. 53

August 1, 1971

0007-PMC-000001034



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Permolith Lithopone

GRADE 20L

Low Oil Absorption

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh	0.10%
Oil Absorption	13
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

May 17, 1971

0007-PMC-000001035



SPECIFICATION

INORGANIC CHEMICALS

PERMOLITH LITHOPONE

Grade 40M

For General Accounts

<u>Miscellaneous Properties</u>		<u>Method</u>
Appearance	Fine White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	14	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	30e
 <u>Chemical Analysis</u>		
Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

Serial No. 54

August 1, 1971

0007-PMC-000001036



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Permolith Lithopone

GRADE 40M

Medium Oil Absorption

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh	0.10%
Oil Absorption	15
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

May 17, 1971

0007-PMC-000001037



SPECIFICATION

INORGANIC CHEMICALS

PERMOLITH LITHOPONE

Grade 60H

For General Accounts

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	15	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	30e

Chemical Analysis

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

Serial No. 52

August 1, 1971

0007-PMC-000001038



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Permolith Lithopone

GRADE 60H

High Oil Absorption

Miscellaneous Properties

Appearance	White Powder
Total Residue, 325 Mesh	0.10%
Oil Absorption	16
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

May 17, 1971

0007-PMC-000001039



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Permolith Lithopone

GRADE 60J

Hydrophobic

Miscellaneous Properties

Appearance
Total Residue, 325 Mesh
Bulking Value
Moisture

White Powder
0.01%
2.79 gals./100 lbs.
0.03%

Chemical Analysis

Zinc Sulfide, ZnS
Zinc Oxide, ZnO
Barium Sulfate, Min.

28.5%
0.2%
95.0% of Remainder

May 17, 1971

0007-PMC-000001040



SPECIFICATION

INORGANIC CHEMICALS

PERMOLITH LITHOPONE

Grade 60N

Non-Reactive

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	12	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	30e

Chemical Analysis

Zinc Sulfide, ZnS, Min.	28.0 %	30A
Zinc Oxide, ZnO, Max.	0.10%	30B
Barium Sulfate, Min.	95.0 % of Remainder	30C

Serial No. 56

August 1, 1971

0007-PMC-000001041



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Permolith Lithopone

GRADE 60N

Non-Reactive

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh	0.10%
Oil Absorption	14
Water Soluble Matter	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5 %
Zinc Oxide, ZnO	0.06%
Barium Sulfate, Min.	95.0 % of Remainder

May 17, 1971

0007-PMC-000001042



SPECIFICATION

INORGANIC CHEMICALS

PERMOLITH LITHOPONE

Grade W-320

Water Wetting

<u>Miscellaneous Properties</u>		<u>Method</u>
Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption, Min.	16	30c
Water Soluble Matter, Max.	0.2 %	30d
Moisture and Other Volatile Matter, Max.	0.1 %	30e

Chemical Analysis

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

Serial No. 55

August 1, 1971

0007-PMC-000001043



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Permolith Lithopone

GRADE W-320

Water Wetting

Miscellaneous Properties

Appearance	White Powder
Total Residue, 325 Mesh	0.10%
Water Soluble Matter	0.18%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.04%
Oil Absorption	16

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

May 17, 1971

0007-PMC-000001044



SPECIFICATION

INORGANIC CHEMICALS

PERMOLITH LITHOPONE

Grade W-421

Water Dispersible

Miscellaneous Properties

Method

Appearance	White Powder	30a
Total Residue, 325 Mesh, Max.	0.15%	30b
Oil Absorption	15	30c
Moisture and Other Volatile Matter, Max.	0.1 %	30e
Water Soluble Matter	0.2 %	30d

Chemical Analysis

Zinc Sulfide, ZnS, Min.	28.0%	30A
Zinc Oxide, ZnO, Max.	0.4%	30B
Barium Sulfate, Min.	95.0% of Remainder	30C

Serial No. 98

August 1, 1971

0007-PMC-000001045



TYPICAL PROPERTIES

INORGANIC CHEMICALS

Permolith Lithopone

GRADE W-421

Water Dispersible

Miscellaneous Properties

Appearance	White
Total Residue, 325 Mesh, Max.	0.10%
Bulking Value	2.79 gals./100 lbs.
Moisture and Other Volatile Matter	0.09%

Chemical Analysis

Zinc Sulfide, ZnS	28.5%
Zinc Oxide, ZnO	0.2%
Barium Sulfate, Min.	95.0% of Remainder

May 17, 1971

0007-PMC-000001046



TYPICAL PROPERTIES

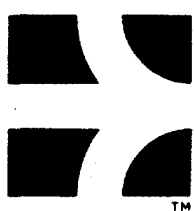
INORGANIC CHEMICALS

SrCO_3 - 60C

SrCO_3	97.5 %
BaCO_3	2.0 %
CaCO_3	0.3 %
MgCO_3	0.01 %
Fe	0.002%
Total Sulfur as S	0.1 %
SO_4 Sulfur as S	0.05 %
Density - lbs./cu.ft.	65

March 8, 1971

0007-PMC-000001047



sherwin
williams
chemicals

TYPICAL PROPERTIES

INORGANIC CHEMICALS

SrCO_3 - 110G

SrCO_3	97.5 %
BaCO_3	2.0 %
CaCO_3	0.3 %
MgCO_3	0.01 %
Fe	0.003%
Total Sulfur as S	0.1 %
SO_4 Sulfur as S	0.1 %

Screen, Cumulative, Tyler

+ 28 8%

+150 91%

-150 9%

Density - lbs./cu.ft. 113

March 8, 1971

0007-PMC-000001048



SPECIFICATION

INORGANIC CHEMICALS

BARIUM SULFIDE

(Black Ash)

BaS

Miscellaneous Properties

Appearance	Black
Screen Analysis (Minus 16 Mesh, Tyler)	100%

Chemical Analysis

Barium Sulfide, BaS, Min.	85.0%
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Serial No. 86

August 1, 1971

0007-PMC-000001049