Developed primarily for grinding and dispersion in enamels, lacquers, paints, etc.

Sp. Gr.—3.9

Bulk—32.5 lbs. per solid gallon
.0308 gallon per pound

Color—Brilliant white and uniform.

Oil Absorption—34-39
L. O. Type—26-30
(Gardner-Coleman)

Light Reflection—See other page

The report of a leading technician follows:

"Mixes and disperses easily and readily with all ordinary paint vehicles, also with glyceryl phthalate vehicles. Very fine texture allowing fine and easy grinding in both stone and roller mills. Settling in an enamel of low viscosity is normal. Stands high heat (250-260 deg. F.) in baking enamels without yellowing or loss of lustre. High light reflectance of baked films (about 1% less than magnesium block). Better opacity, or hiding power, than any competitive product tried. Color of pigment is such that shading problems are greatly alleviated. Flow-out in enamels is excellent."

Developed primarily for applications where excellent aqueous dispersion is desired also very low liquid absorption.

Sp. Gr.—3.9

Bulk—32.5 lbs. per solid gallon
.0308 gallon per pound

Color—White and uniform.

Oil Absorption—27-29 (Gardner-Coleman)

Light Reflection—see other page.

The remarkable water suspension of this type TiO_2 can be easily observed by shaking a small sample with water.

THE CHEMICAL & PIGMENT CO.

General
SALES AGENT
for

"ZOPAQUE"

(Pure TiO_2)

American Zirconium Corp., Producer

Sales Offices:
St. Helena, Baltimore, Md.
Collinsville, Illinois
Oakland, California

Third Printing



GL0321321

The American Zirconium Corporation is pleased to present to the American market a high grade pure TITANIUM DIOXIDE pigment possessing all of those outstanding chemical and physical characteristics which make this substance of such unusual value for those processes and uses which benefit from a highly concentrated, inert and opaque white pigment.

"Zopaque" is the registered trade name for this product which is available in several grades and is distributed solely by and through The Chemical & Pigment Company, which has for years specialized in the manufacture and sale of pigments, particularly the white pigments.

"Zopaque" is the result of experimental work and research investigation beginning in 1926 covering original methods of production of titanium dioxide from the mineral Ilmenite, designed to enable a very pure oxide to be made in substantial quantities. This resulted in methods covered by several American patents under which, together with license arrangements involving contemporary work by others, our product is manufactured in our new modern plant at St. Helena, Baltimore, Maryland, built solely for the manufacture of pure titanium dioxide.

The unusual results that may be obtained by the use of "Zopaque" in all types of operations and processes requiring a white pigment are just beginning to be understood in the arts so that all users of white pigment will be interested in checking into its possibilities for their own process.

"Zopaque" is unaffected by any ordinary chemical influences. Such conditions as exposure to sulphurous gases, chemical fumes, acids, etc., are without effect upon it. Likewise it is extremely resistant to alkalies, requiring almost an actual fusion at high temperatures to evidence any reaction.

Heat does not bring about material changes in color and the high opacity of "Zopaque" further serves to mask changes that may occur in the vehicle in which it is used. This property of heat resistance makes possible important applications in ceramics and in baked coatings.

"Zopaque" is very fine in ultimate particle size with a range from the submicroscopic to around one micron. This makes the suspension characteristics excellent. Screen tests on "Zopaque" shipments will show 99.9+% thru 325 mesh. It conforms fully to requirements of ASTM designation D-348-34T covering pure Titanium Dioxide (TiO_2).

The oil absorption, dispersion and consistency characteristics range with the several grades of "Zopaque."

"Zopaque" shows very high light reflection in both air dried and baked films—about 98-99% compared to the magnesium block. This is outstanding.

Both types produce opacity and excellent whiteness in waxed sheets.

These properties explain the high value of "Zopaque" in all types of coatings and the special results obtainable with it and not possible with any other white pigment in all fields of the industrial arts.

Although many scientific tests have been developed for evaluating the properties of white pigments, the best and final test is to try "Zopaque" by actual use for which purpose samples and technical cooperation are available.

WHITENESS OPACITY

The distinguishing characteristics of "Zopaque" are extreme chemical stability or inertness to change, high opacity and high tinting strength. Comparative characteristics of some of the white pigments are shown below.

	Opacity	Tinting Strength
White Lead (Basic Carbonate)	100	100
Zinc Oxide	147	200
Lithopone (28-30%)	160	280
Antimony Oxide	180	360
Zinc Sulfide 60%	240	450
Pure Zinc Sulfide	367	540
Zopaque (TiO_2)	480	1050

The premier position of "Zopaque" is readily apparent. No commercially available white substance even closely approaches titanium dioxide in these respects and Zopaque represents the latest advance in the art of manufacturing this remarkable material.

"Zopaque" may be blended with other fillers or inerts in any proportion by the user thus securing complete control of the titanium content of any formulation or compounding.

"Zopaque" is available in several grades distinguished by differences in physical characteristics and adapted for special requirements of the consuming trades. Three of these are described generally as follows:

GL 0211322