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"Dutch Boy"
PLUMB-O-SIL' B

AN INORGANIC
LOW-TINTING POWER
STABILIZER FOR
VINYL CHLORIDE PLASTICS



DUTCH BOY CHEMICALS

A Product Development of
NATIONAL LEAD COMPANY

7-75-56

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NLI 11597

"Dutch Boy" **PLUMB-O-SIL® B**

"DUTCH BOY" PLUMB-O-SIL B, a co-precipitated mixture of lead ortho-silicate and silica gel, is a heat and light stabilizer for vinyl chloride polymers and copolymers. Unpigmented vinyl stocks stabilized with PLUMB-O-SIL B are highly translucent.

Table of Properties

Color and Form.....	Soft white powder
Lead Content, % PbO, average.....	33
Silica Content, % SiO ₂ , average.....	62.5
Refractive Index, average.....	1.58
Specific Gravity.....	3.3
Solubility.....	Insoluble in most common solvents

General Features

PLUMB-O-SIL B provides the good stability and anti-blacking* characteristics of the lead silicate-silica gel complexes. The prevention of cracking in vinyl sheeting and extruded compounds is achieved through the ability of PLUMB-O-SIL B to retain materials on the gel structure which would ordinarily migrate to the surface of the vinyl products. Undesirable interactions with certain plasticizer types are kept to a minimum through mild and controlled lead stabilization. PLUMB-O-SIL B is particularly effective with plasticizers of the oxidizable oil types, such as other esters and aliphatic unsaturated esters. The low refractive index of PLUMB-O-SIL B makes it valuable not only for compounds of high

*Blacking may be defined as the tendency of coloring plastic parts to yellow or turn another color in service of use.

transparency, but also for products in which desired. PLUMB-O-SIL B is particularly suited for the majority of dyes and colorants.

Recommendations

PLUMB-O-SIL B is recommended for extrusions. It is unique in its suitability for it permits a wide color and translucency on unusually dry and pleasing surface. These conditions well known for their attractive appearance and easy heat sealing.

The general level of usage of PLUMB-O-SIL on the weight of the resin. When especially met, such as in high temperature calendaring, SIL is often supplemented with other types of "BOY" PROVINITE is a suitable co-stabilizer for colored stocks. For opaque stocks, a stabilizer "50" will provide additional reserve heat of the excellent open absorbency of PLUMB-O-SIL of the PLUMB-O-SIL stabilized product.

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"Dutch Boy"

PLUMB-O-SIL® B

PLUMB-O-SIL B, a co-precipitated mixture of lead ortho- is a heat and light stabilizer for vinyl chloride polymers. mented vinyl stocks stabilized with PLUMB-O-SIL B are

Table of Properties

	Sub white powder
Q, average	.32
A, average	.02.5
Temp.	1.52
	.1.5
	Available in most common solvents

General Features

overides the good stability and anti-blackening characteristics fine gel complexes. The prevention of spruing in vinyl compounds is achieved through the ability of PLUMB-O-SIL on the gel structure which would ordinarily migrate to reduce. Undesirable interactions with certain plasticizers occur through mild and controlled lead stabilization, clearly effective with plasticizers of the oxidizable oil and aliphatic unsaturated esters. The low refractive B makes it valuable not only for compounds of high making of softening plastic layers to adhere to the surface when in

transparency, but also for products in which vivid colors or deep shades are desired. PLUMB-O-SIL B is particularly notable for its good performance with the majority of dyes and colorants.

Recommendations

PLUMB-O-SIL B is recommended for vinyl film and sheeting, and for vinyl extrusions. It is unique in its suitability for film and sheeting, not only because it permits a wide color and transparency range, but also because it imparts an unusually dry and pleasing surface. These characteristics make PLUMB-O-SIL B stocks well known for their attractive appearance, excellent embossing properties and easy heat setting.

The general level of usage of PLUMB-O-SIL B is between 4 and 7%, based on the weight of the resin. When especially severe heat requirements must be met, such as in high temperature calendaring or extrusion cycles, the PLUMB-O-SIL is often supplemented with other types of stabilizers. For example, "DUTCH ROY" PROVINITE is a suitable co-stabilizer for highly translucent or vividly colored stocks. For opaque stocks, a stabilizer such as "DUTCH ROY" LECTRO "50" will provide additional reserve heat stability at low cost. It will not affect the excellent upon transparency of PLUMB-O-SIL or the dry surface characteristic of the PLUMB-O-SIL stabilized product.

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