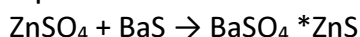


REAL LITHOPONE BY VB TECHNO Is The Reinvented Solution For Partial TiO₂ Replacement

Lithopone by VB Techno is a white pigment co-precipitated from solutions of zinc and barium salts in accordance with the following reaction equation:



Lithopone by VB Techno is an individual and pure chemical entity very different from any mixed products available to the market.

Lithopone by VB Techno is not only REACH and Indirect Food compliant, but also fulfils all the state of the art European RA Regulations for Toys, Packaging, Resin, etc.

Thanks to its rheological and optical properties, Lithopone by VB Techno offers both technical and economic advantages in TiO₂. Partial Replacement in a number of different applications.

LITHOPONE RED SEAL IN LIQUID COATINGS

Lithopone Red Seal by VB Techno is suitable in TiO₂ partial replacement for industrial and anticorrosive paint, for primer and for decorative and architectural paints.

Lithopone Red Seal present maximum purity, good opacity and reasonable light fastness. Lithopone Red Seal TiO₂ reformulation approach in liquid coating reduce costs, increase film resistance and show undirected fungicidal and algicidal actions.

REFORMULATE AS FOLLOW:

- Remove 5% up to 40% of TiO₂.
- Replace 1 Kg TiO₂ with 1 Kg of Lithopone Red Seal below 20% TiO₂ substitution rate.
- Replace 1 Kg TiO₂ with 1.3 Kg of Lithopone Red Seal above 20% TiO₂ substitution rate.
- Reduce coarse extender (if any) to achieve the original pigment volume concentration.
- Reduce a little binder.

VERY IMPORTANT:

During lab tests and production first of all add Lithopone to liquid batch disperse or mill and only after add TiO₂ and disperse or mill.

Example TiO₂ reformulation strategy in liquid paint:

Component	Base Paint	10% TiO ₂	20% TiO ₂	40% TiO ₂
		Ref 1:1	Ref 1:1	Ref 1:1.3
Water	128	128	131	136
Thickener (Celluloseether)	188	188	188	188
Dispersing Agent, Acrylic	3	3	3	3
Lithopone	0	10	20	40
TiO ₂	100	90	80	70
CaCO ₃	450	450	450	440
Binder	108	108	105	100
Additives (Biocide, pH Corr., Antifoam, etc.)	23	23	23	23
	1000	1000	1000	1000

REAL LITHOPONE BY VB TECHNO Is The Reinvented Solution For Partial TiO_2 Replacement



LITHOPONE PLATINUM SEAL IN MASTERBATCH

Lithopone Platinum Seal reduce cost, increase productivity, improve quality and is suitable for PP, PE, PS masterbatch for injection, single layer film, multilayer films masterbatch and for white, colored and filled masterbatch.

Lithopone Platinum Seal present maximum purity, good opacity and reasonable light fastness.

LITHOPONE RED SEAL IN NATURAL AND SYNTHETIC ELASTOMERS

Lithopone Red Seal is the perfect TiO_2 partial replacement solution for all pigmented natural and synthetic elastomers and rubbers since it is completely non-abrasive and extremely acid resistant.

Example TiO_2 reformulation strategy in white Masterbatch

	Base Masterbatch	Ref.5% TiO_2	Ref.10% TiO_2	Ref.15% TiO_2	Ref. 18 % TiO_2	Ref.25 % TiO_2
Polymer	39	39	37	36	36	34
TiO_2	60	57	54	52	50	45
Lithopone Platinum Seal	--	3	8	11	13	20
Additives	1	1	1	1	1	1
Total composition %	100	100	100	100	100	100
Ashes %	60	60	62	63	63	65

REAL LITHOPONE BY VB TECHNO Is The Reinvented Solution For Partial TiO_2 Replacement

Lithopone Red Seal in any kind of rubber do not only reduce cost by TiO_2 partial replacement but also increase industrial production output and increase finished product durability, thermal resistance, and mechanical resistance.

REFORMULATE AS FOLLOW:

- 1 Kg TiO_2 : 1 Kg Lithopone Platinum Seal below 10% TiO_2 substitution rate
- 1 Kg TiO_2 : 1,3 Kg Lithopone Platinum Seal above 10% TiO_2 substitution rate
- Reduce polymer content accordingly

VERY IMPORTANT: premix Lithopone Platinum Seal with TiO_2 in high speed or pin mixer before adding polymer and additives.

LITHOPONE RED SEAL IN PUTTIES, ADHESIVE, JOINTS AND SEALANTS

Lithopone Red Seal is the perfect TiO_2 partial replacement solution in putties due to its very soft nature and virtually not shrinking properties.

Lithopone Red Seal is suitable for TiO_2 partial replacement when major acid resistance is necessary such as in adhesive joints and sealants.

The team of ACAT Chemtech division is available for further technical support. Do not hesitate to contact us if you need detailed information or samples.