



POEL
bonding together



POEL - The Company with a Mission and a Vision

MISSION

POEL corporate value includes co-ordinated measures to create consistent and sustainable quality standard products through innovation and prudence, complying with the state-of-the-art technology alongside relevant regulations, environment and safety requirements.

VISION

To create exciting values of innovation to our customers expectations by relentlessly improving our products and our business efficiencies to achieve exceptional operating performance leading to market leadership.

We shall make this happen in an enriching environment of trust, cooperation and mutual respect.

Effectiveness is doing the right things

Efficiency is doing things right

Bonding together with our customers, we shall move onwards and upwards.

LEAD - Pb

PROPERTIES

Appearance	Heavy ductile grey solid
Atomic Number	82
Purity	99.98%++
Melting Point	327.4° C
Boiling Point	1755°C
Specific Gravity	11.35
Antimony	< 0.0005%
Copper	< 0.0005%

APPLICATIONS

- Lead is widely used in manufacture of storage batteries, lead oxides and lead compounds.
- Also used in radiation shielding, solder cable sheathing, alloys and type metal.
- * All types of lead alloys manufactured per customers specifications.

LEAD MONOXIDE LITHARGE - PbO

PROPERTIES

Appearance	Fine Canary Yellow Powder
Molecular Weight	223.2
Purity	99.5% min.
Apparent Density	1.6 - 2.4 gm/cc
Specific Gravity	9.5 to 9.55
Matter Insoluble in Acetic Acid	0.2% max.
Iron as Fe	0.002% max.
Volatile Matter at 105°C for 2 hours	0.2% max.
Fineness through 240 Mesh	99.5% min

PACKING

25 kgs. HDPE bags with Polythene Liner.

APPLICATIONS

- Primarily used in manufacture of PVC stabilizer and lead based chemicals.
- Widely used in lead storage batteries, crystal glass, glass sheets and TV tubes.
- Also used in greases and in rubber as a vulcanizing agent.

LEAD SUB OXIDE - GREY OXIDE

PROPERTIES

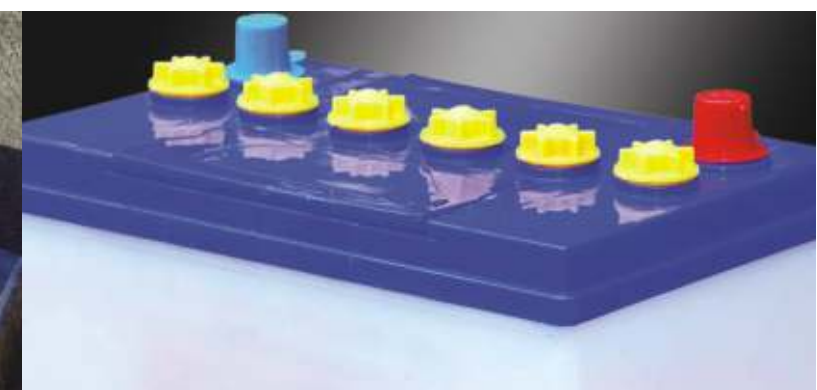
Appearance	Greenish Grey Powder
Free Metallic Lead	27 - 33%
Molecular Weight	218
Specific Gravity	8.342
Moisture Contents	< 0.05%
Volatile Matter at 105°C for 2 hours	< 0.02%

PACKING

25 kgs. HDPE bags with Polythene Liner.

APPLICATIONS

- Primarily used in battery industries in the manufacture of battery plates.



RED LEAD - Pb₃O₄

PROPERTIES

Appearance	Reddish Powder
Lead Dioxide Contents	28 - 33%
Apparent Density	1.3 - 1.6 gm/cc
Volatile Matter at 105°C for 2 hours	0.2% max.
Residue on Sieve (63 micron)	0.5% max.

PACKING

25 kgs. HDPE bags with Polythene Liner.

APPLICATIONS

- Primarily used in manufacture of battery plates, paints, glass and ceramics.

ZINC OXIDE - ZnO MOLECULAR WEIGHT 81.38, ZINC CONTENT 80%

	GOLD SEAL	SILVER SEAL	WHITE SEAL
Purity (After Ignition)	99.90%	99.50%	99.30%
Specific Gravity	5.5-5.65	5.5-5.65	5.5-5.65
Moisture Content	0.2% max.	0.2% max.	0.2% max.
Loss of Ignition @ 850°C	0.3 max.	0.5 max.	0.5 max.
Iron As Fe	<0.001%	<0.002%	0.003%
Copper As Cu	<0.001%	<0.001%	0.001%
Cadmium As Cd	<0.001%	<0.005%	0.01%
Lead As Pb	<0.002%	0.10%	0.15%
Sieve Residue Through 325 Mesh Passing	99.99%	99.99%	99.85%
Free Metallic Zinc	<5 Spots	<5 Spots	<50 Spots

Applications	Used in varistors, thermal papers, electroplating & dietary supplement in animal feed.	Widely used in ceramic, floor tiles, frits & glazes	Primarily used as accelerator, activator & reinforcing agent in rubber
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TRI BASIC LEAD SULPHATE (TBLs) 3PbO.PbSO₄.H₂O

PROPERTIES

Appearance	White Powder
Molecular Weight	990
Specific Gravity	6.6 to 6.7
Refractive Index	2.1
Total Lead as PbO	87 – 89%
Moisture Content	0.25% max
Active PbO	66% min
Bulk Density, Free Flowing	0.8-1.2 gm/ml
Particle Size (500 mesh)	99% min

RECOMMENDED DOSAGE

Rigid Pipes / profiles - 2.5-3.0 phr
Wires / Cables - 4.0-5.0 phr

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Primarily used as heat stabilizer in PVC formulation.
- Widely used in rigid PVC pipes, profiles & cables.
- Also used in reinforced suction hose, sheet & tubing.

DI BASIC LEAD STEARATE (DBLS) 2PbO.Pb(C₁₈H₃₅O₂)₂

PROPERTIES

Appearance	White Powder
Molecular Weight	1220
Specific Gravity	1.9 to 1.95
Refractive Index	1.6
Total Lead as PbO	53-56%
Moisture Content	0.5 % max
Bulk Density, Free Flowing	0.45-0.65 gm/ml
Particle Size (240 mesh)	99 % min

RECOMMENDED DOSAGE

0.5-1.5 phr

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Primarily used as a heat stabilizer and lubricant in PVC formulation.
- Widely used in rigid PVC pipes, profiles and cable compounds.
- Also used in reinforced suction hose, sheet and tubing.

DI BASIC LEAD PHTHALATE (DBLPH) C₆H₄(COO)₂ Pb.2PbO

PROPERTIES

Appearance	Creamy White Powder
Molecular Weight	817
Specific Gravity	4.4 to 4.6
Refractive Index	1.9
Total Lead as PbO	79 - 81%
Moisture Content	0.5% max
Bulk Density, Free Flowing	0.5 - 0.7 gm/ml
Particle Size (400 mesh)	99% min

RECOMMENDED DOSAGE

2-3phr

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Primarily used as heat stabilizer in PVC formulation.
- Widely used in cables and wire compounds.
- Also used in sheetings and other foamed PVC products.



LEAD STEARATE (LS) - $Pb(C_{18}H_{35}O_2)_2$

PROPERTIES	
Appearance	White Powder
Molecular Weight	774
Specific Gravity	1.35 to 1.4
Refractive Index	1.2
Total Lead as PbO	29-31%
Moisture Content	0.5% max
Bulk Density, Free Flowing	0.35-0.45 gm/ml
Particle Size (240 mesh)	98% min

RECOMMENDED DOSAGE

0.5 – 2.0 phr

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Primarily used as internal lubricant and stabilizer in PVC.
- Widely used in rigid PVC pipes, profiles and cable compounds.
- Also used in reinforced suction hoses, sheets, tubings, petroleum, greases, varnish and paints.

DI BASIC LEAD PHOSPHITE (DBLP) - $2PbO.PbHPO_3$

PROPERTIES	
Appearance	White Powder
Molecular Weight	743
Specific Gravity	6.8 to 7.0
Refractive Index	2.25
Total Lead as PbO	88-89%
Moisture Content	0.5% max
Bulk Density, Free Flowing	0.5-0.7 gm/ml
Particle Size (400 mesh)	99% min

RECOMMENDED DOSAGE

0.75-4 phr

To be used along with other external and internal lubricants such as lead stearate, DBLS, calcium stearate, stearic acid and paraffin wax.

PACKING

25 kgs. HDPE bags with Polythene Liner.

APPLICATIONS

- Primarily used as light and heat stabilizer in PVC formulation.
- Anti-oxidising and ultra-violet screening for vinyl and chlorinated resins.
- Widely used in rigid PVC profiles, pipes and PVC compounds. Also used in plastics.

PO3 Series

PROPERTIES	PO3	PO3 N	PO3 E	PO3 S
Appearance	White Powder	White Powder	Creamish White Powder	White Powder
Lead as PbO	57.4 - 57.6%	52 - 54%	42 - 44%	35 - 37%
Moisture Content	0.5% max.	0.5% max.	0.5% max.	0.5% max.
Bulk Density, Free Flowing	0.6 - 0.8 gm/ml	0.6 - 0.8 gm/ml	0.6 - 0.8 gm/ml	0.7 - 0.75 gm/ml
Fineness through 240 mesh	98%	98%	98%	98%
Lubrication	Moderate	Moderate	Moderate	Good

RECOMMENDED DOSAGE

2 – 2.8 phr

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Primarily used in RPVC pipes, conduits, profiles & fittings.
- Also used in PVC compounding & reinforced suction hoses.

PROPERTIES	
Appearance	White Fine Powder
Lead Oxide Content	57 – 59%
Specific Gravity	2.46 – 2.47
Moisture Content	0.3% max
Total Lubricants	27 – 28%

PO3 10F

RECOMMENDED DOSAGE

2 – 3 phr

PACKING

25 kgs. HDPE bags with polythene liner

BENEFITS

- Free flowing
- Easy processibility than liquid stabilizers
- Higher VST without warpage

APPLICATIONS

- Highly suitable for the manufacture of PVC pressure fittings, SWR fittings and UPVC fittings.

PROPERTIES	
Appearance	White Powder
Lead Oxide Content	63%
Moisture Content	0.3%
Bulk Density, Free Flowing (GM/ML)	0.80
Fineness through 240 Mesh	99.5%

PO3 - COP

RECOMMENDED DOSAGE

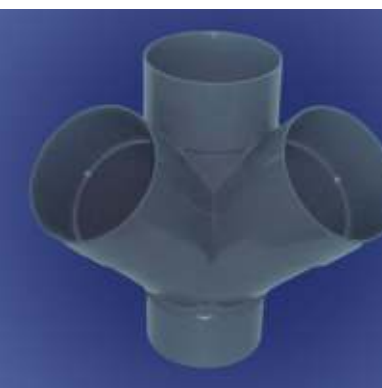
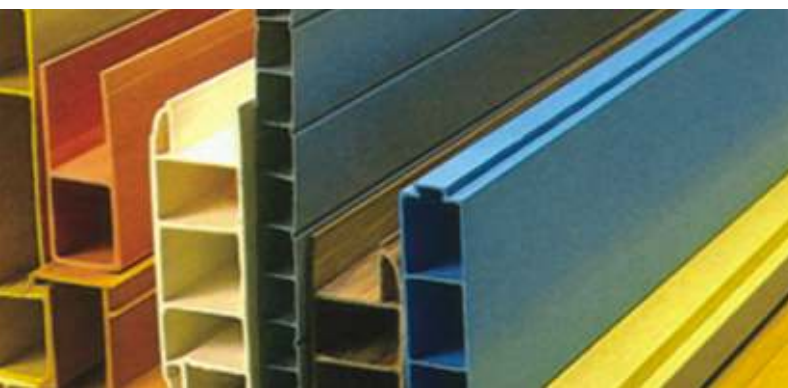
1.5 – 3 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

- Lead based complex stabilizer.
- Suitable for manufacture of cable, sheathings & hoses
- Very effective heat & light stabilizer.



PO3 TOP FLAKES**PROPERTIES**

Appearance	Creamish White Flakes
Lead as PbO	32 - 32.3%
Moisture Content	0.5% max.
Lubrication	High

RECOMMENDED DOSAGE

2.0 – 3.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

- Primarily used in RPVC pipes, conduits, profiles & fittings.
- Also used in reinforced suction hoses.

PO3 TOP FLAKES 418**PROPERTIES**

Appearance	Creamish White Flakes
Lead Oxide Content	32 - 34%
Moisture Content	0.5% max.
Specific Gravity	1.45 - 1.55
Lubrication	Good

RECOMMENDED DOSAGE

2.0 – 2.4 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

Comprehensive lead complex for rigid PVC pipes commercial and profiles. Balanced lubrication enables easy processing along with small quantities (0.1 – 0.2 phr) paraffin wax or polyethylene wax or synthetic ester wax may be considered.

PO3 TOP FLAKES 305**PROPERTIES**

Appearance	White Flakes
Lead Content	34 - 35%
Moisture Content	0.5% max
Lubrication	Good

RECOMMENDED DOSAGE

1.8 – 2.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

It is a fundamental lead complex stabilizer having balanced lubrication and thermal stability for pipe and profile extrusion. Its unique formulation and state-of-the art manufacturing has made it versatile. Due to its specific design, allows the processors to comply with narrow wall thickness tolerances in pipe extrusions. At higher levels of fillers for example non pressure pipes addition of small quantities (0.1 – 0.2 phr) paraffin wax or polyethylene wax or synthetic ester wax may be considered.

PO3 TOP FLAKES 318**PROPERTIES**

Appearance	Creamish White Flakes
Lead as PbO	28 - 29%
Moisture Content	0.5% max
Lubrication	High

RECOMMENDED DOSAGE

2.2 - 3.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

This one pack lead based heat stabilizer has been specially developed with the addition of speciality lubricants and anti-oxidants for rigid pipe extrusions and for commercial applications. Good gloss and surface finish gives the end products a cutting edge.

PO3 TOP FLAKES 318 D**PROPERTIES**

Appearance	Creamish White Flakes
Lead as PbO	27 - 29%
Moisture Content	0.5% max
Lubrication	Good

RECOMMENDED DOSAGE

2.2 - 3.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

This one pack lead based heat stabilizer has been specially developed with the addition of speciality lubricants and anti-oxidants for rigid pipe extrusions and for commercial applications. Good gloss and surface finish gives the end products a cutting edge.

PO3 TOP FLAKES 318 P**PROPERTIES**

Appearance	Creamish White Flakes
Lead as PbO	24 - 26%
Moisture Content	0.5% max
Lubrication	Good

RECOMMENDED DOSAGE

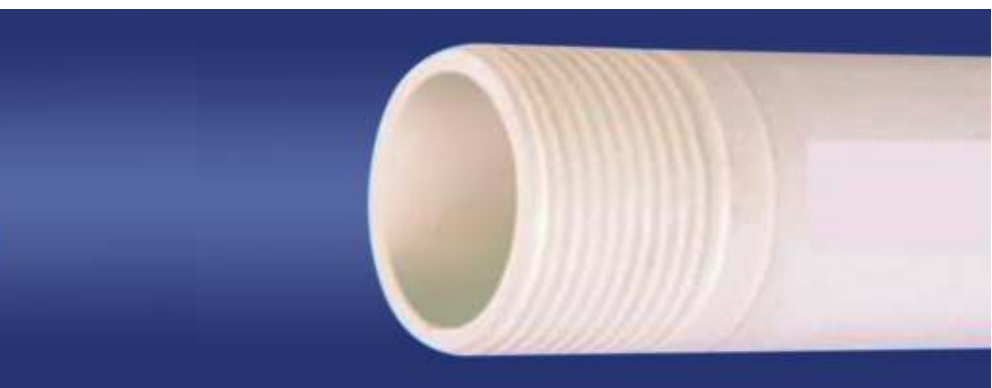
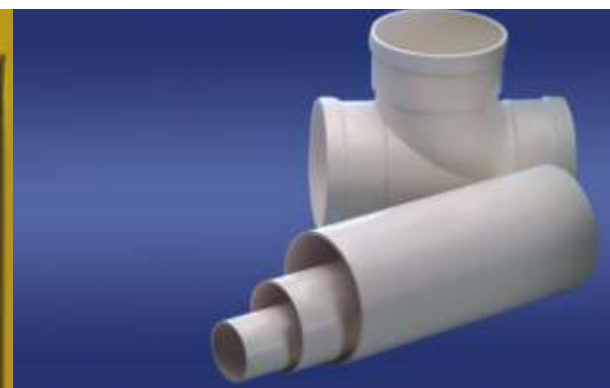
2.2 - 3.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

This one pack lead based heat stabilizer has been specially developed with the addition of speciality lubricants and anti-oxidants for rigid pipe extrusions and for commercial applications. Good gloss and surface finish gives the end products a cutting edge.



PO3 TOP FLAKES 318 S

PROPERTIES

Appearance	Creamish White Flakes
Lead as PbO	28 - 30%
Moisture Content	0.5% max
Lubrication	Good

RECOMMENDED DOSAGE

2.2 - 3.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

This one pack lead based heat stabilizer has been specially developed with the addition of speciality lubricants and anti-oxidants for rigid pipe extrusions and for commercial applications. Good gloss and surface finish gives the end products a cutting edge.

PO3 TOP FLAKES 318 SP

PROPERTIES

Appearance	Creamish White Powder
Lead as PbO	28 - 30%
Moisture Content	0.5% max
Lubrication	Good

RECOMMENDED DOSAGE

2.2 - 3.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

This one pack lead based heat stabilizer has been specially developed with the addition of speciality lubricants and anti-oxidants for rigid pipe extrusions and for commercial applications. Good gloss and surface finish gives the end products a cutting edge.

PO3 TOP FLAKES 2500

PROPERTIES

Appearance	Creamish White Flakes
Lead as PbO	24 - 25%
Moisture Content	0.5% max
Lubrication	High

RECOMMENDED DOSAGE

2.4 - 3.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

Economy and efficacy are the major features of this lead based one pack heat stabilizer. Lubricants are specially designed to provide additional stability during the process of extrusion of rigid pipes.

PO3 TOP FLAKES 2500 D

PROPERTIES

Appearance	Creamish White Flakes
Lead as PbO	24 - 26%
Moisture Content	0.5% max
Lubrication	High

RECOMMENDED DOSAGE

2.4 - 3.2 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

Economy and efficacy are the major features of this lead based one pack heat stabilizer. Lubricants are specially designed to provide additional stability during the process of extrusion of rigid pipes.

PO3 TOP FLAKES 2200

PROPERTIES

Appearance	Creamish White Flakes
Lead as PbO	15 - 17%
Moisture Content	0.5%
Specific Gravity	1.50 - 1.60
Lubrication	High

RECOMMENDED DOSAGE

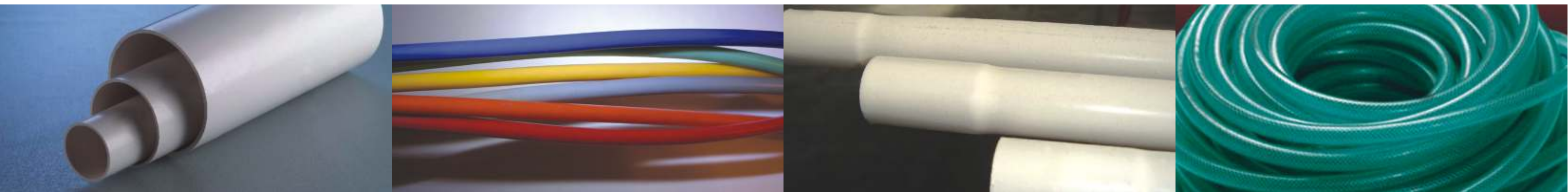
2.4 - 3.2 phr

PACKING

25 kgs HDPE bags with polythene liner

APPLICATIONS

Primarily used for conduits and non pressure pipes. Economical lead based one pack lubricated heat stabilizer.



CALCIUM STEARATE (CS) - $\text{Ca}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2$

PROPERTIES

Appearance	White Powder
Molecular Weight	606
Specific Gravity	1.05
Ash content	9.5 - 10.5%
Calcium Content	6.8 - 7.5%
Moisture Content	2% max
Bulk Density, Free Flowing	0.25 - 0.35 gm/ml
Particle Size (240 mesh)	98% min
Free Stearic Acid	1% max

RECOMMENDED DOSAGE

0.5 - 1.0 phr

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Primarily used as internal lubricant and co-stabilizer in PVC formulation.
- Widely used in rigid PVC pipes, profiles and cable compounds also used in reinforced suction hoses, sheets, tubings and films, Polypropylene, master batches, cement paints, pharmaceuticals, water repellent, flattening agent, mould release and in cosmetics.

ZINC STEARATE (ZS) - $\text{Zn}(\text{C}_{18}\text{H}_{35}\text{O}_2)_2$

PROPERTIES

Appearance	White Powder
Molecular Weight	632
Specific Gravity	1.095
Ash Content	13-15%
Zinc Content	10.45-12%
Moisture Content	0.5% max
Bulk Density, Free Flowing	0.25 - 0.35 gm/ml
Particle Size (240 mesh)	99% min
Free Stearic Acid	1% max

RECOMMENDED DOSAGE

0.5 - 1.0 phr

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Primarily used as a heat stabilizer and lubricant along with Calcium Stearate and other additives in PVC formulation.
- Widely used in soft PVC formulation as non-toxic stabilizer.
- Also used in master batches for Polypropylene and other plastics, cosmetics, pharmaceuticals and paints.

BARIUM STEARATE (BS) - $(\text{C}_{18}\text{H}_{35}\text{O}_2)_2 \text{Ba}$

PROPERTIES

Appearance	White Powder
Molecular Weight	703
Specific Gravity	1.145
Ash Content	21 - 23%
Barium Content	18.8 - 20.6%
Moisture Content	2% max
Bulk Density, Free Flowing	0.3-0.4 gm/ml
Particle Size (240 mesh)	98% min

RECOMMENDED DOSAGE

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Barium Stearate is used as a dry lubricant in metal processing.
- It is also used for making transparent films, flakes, cable granules and rigid materials.

CADMIUM STEARATE (CdS) - $(\text{C}_{18}\text{H}_{35}\text{O}_2)_2 \text{Cd}$

PROPERTIES

Appearance	White Powder
Molecular Weight	680
Specific Gravity	1.21
Ash Content	19 - 21%
Cadmium Content	16.6 - 18.4%
Moisture Content	0.5% max
Bulk Density, Free Flowing	0.35 - 0.45 gm/ml
Particle Size (240 mesh)	98% min

RECOMMENDED DOSAGE

PACKING

25 kgs. HDPE bags with Polythene Liner

APPLICATIONS

- Cadmium Stearate is used as a heat stabilizer and lubricant for transparent PVC compounds.
- It is used in combination with other stabilizers like Barium Stearate and Lead Stearate.

LUBRICANTS

PONDYLUBE

PROPERTIES

Appearance	Creamish White Noodles
Specific Gravity	0.82-0.84
Melting Point	58°C min

RECOMMENDED DOSAGE

0.150 - 0.600 phr

PACKING

25 kgs. HOPE bags with Polythene Liner

APPLICATIONS

- Primarily used as lubricant for PVC pipes, profiles and fittings.
- Widely used as lubricants in RPVC pipes with higher filler loading, reground pipes to give better impact and processability.

PROADD 2022

PROPERTIES

Appearance	White Noodles
Specific Gravity	0.95
Chemical Composition	Proprietary

RECOMMENDED DOSAGE

0.4 - 1.2 phr

PACKING

25 kgs. HOPE bags with Polythene Liner

APPLICATIONS

- Primarily used for rework and reground applications.
- Rigid PVC compound, flexible and suction hose applications.
- Contributes good flow for thermal stability, good weld line/spider line nit.
- Excellent compatibility on higher output extrusion.



BARIUM ZINC SHOE COMPOUND SC - 16

PROPERTIES	
Appearance	Fine White Powder
Moisture Content	0.5% max.
Bulk Density, Free Flowing	0.25 - 0.35 gm/ml
Fineness through 240 Mesh	98% min.

RECOMMENDED DOSAGE

2 - 2.8 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

For white sports shoes application

BARIUM LEAD SHOE COMPOUND SC - 17

PROPERTIES	
Appearance	Fine White Powder
Moisture Content	0.5% max.
Bulk Density, Free Flowing	0.3 - 0.4 gm/ml
Fineness through 240 Mesh	98% min.

RECOMMENDED DOSAGE

2.2 - 3 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

For black and general compounding and also used in PVC foam compound

MIXED METALS SHOE COMPOUND SC - 18

PROPERTIES	
Appearance	Fine White Powder
Moisture Content	0.5% max.
Bulk Density, Free Flowing	0.3 - 0.4 gm/ml
Fineness through 240 Mesh	98% min.

RECOMMENDED DOSAGE

2.2 - 3 phr

PACKING

25 kgs. HDPE bags with polythene liner

APPLICATIONS

For compact PVC compound

All chemicals, liquid or solid, to be handled with caution.

Disclaimer: POEL does not guarantee the applicability and accuracy of this information or the suitability of our product in any given situation, since we cannot anticipate or control the conditions under which this information and our product may be used. Users of our products should themselves determine its suitability for their particular purpose by conducting their own tests and trials. Our product is sold without warranty, either express or implied and the buyer assumes all responsibility for loss or damage arising from handling and use of our product, whether done in accordance with directions or not. Further it is not the intention of any statements regarding the possible use of our product as recommendations to the use of our product in the infringement of any patent.

