



POWERING PROGRESS THROUGH PLASTICS  
ISO 9001:2008 Certified

# AIPMA



## THE ALL INDIA PLASTICS MANUFACTURERS' ASSOCIATION

AIPMA House, A-52, Road No. 1, M.I.D.C., Marol, Andheri (East), Mumbai - 400 093, India.  
Phone : (+91-22) 6777 8899 (30 Lines) 2835 2511 / 2835 2512  
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**OFFICE BEARERS :** Ref.No.AIPMA/0001/2020-21

5<sup>th</sup> November, 2020

**CHANDRAKANT TURAKHIA**  
President

To,

**Dr. Ritesh Joshi**

**KISHORE SAMPAT**  
Senior Vice President

**Scientist 'E'/ Additional Director**

**Ministry of Environment, Forest & Climate Change,**

**Government of India,**

**MAYUR D. SHAH**  
Vice President - Finance

**Room No. A-129, Agni Block, First Floor,**

**Indira Paryavaran Bhawan,**

**AKSHAT LADHA**  
Vice President (West Zone)

**Jor Bagh Road, New Delhi-110003**

**LALIT KUMAR SINGH**  
Vice President (North Zone)

**Subject: Draft Lead Stabilizer in Polyvinyl Chloride (PVC) Pipes and Fittings, Rules, reg.-**

**ANIL REDDY VENNAM**  
Vice President (South Zone)

**Ref.: Your email dtd. 23<sup>rd</sup> October, 2020**

**ASHOK AGARWAL**  
Vice President (East Zone)

Dear Sir,

Greetings from AIPMA.

**North Zone :**  
Plot No. 232, Sector - 18,  
Phase - IV, Udyog Vihar,  
Gurugram, Haryana - 122 016.  
Tel. No.: 0124 4050 005 / 6  
naresh@aipma.net

With reference to your email dated regarding the information about cost implications for replacing lead stabilizers with Ca-Zn/Tin stabilizers in manufacturing of PVC pipes and fittings, AIPMA consulted subject matter experts and also industry stake holders. Based on the discussion, we would like to submit the following:-

**South Zone :**  
4C-Gaiety Palace,  
1, Blackers Road, Chindadripet,  
Chennai - 600 002.  
Tel No.: 044 4203 0236  
ibrahim@aipma.net

The cost implication/increase in replacing lead stabilizers with Ca-Zn/Tin stabilizers can be attributed to three major factors.

**East Zone :**  
Gajraj Signature,  
Suite # 5E, 5th Floor,  
5A, Sadananda Road,  
Kolkata - 700 026.  
Tel No.: 033 4005 0367  
tapas@aipma.net

1. Cost implication on account of increase in compounding cost:-

Please find the table of generic compounding formulation for PVC pipes using Lead, Ca-Zn and Tin based stabilizers.

Particulars	Price	Generic Formulation for PVC pipes		
	INR/Kg	Lead	Ca-Zn	Tin
PVC	73	100	100	100
Calcium Carbonate	10	8	8	8
Lead Stabilizers	130	2	0	0
CaZn Stabilizers	170	0	4	0
Reverse Ester Tin	520	0	0	1

**West Zone :**  
Mondeal Heights, Tower - A  
13<sup>th</sup> Floor, Office No.1306/1307,  
S.G. Highway, Near Wide Angle  
Cinema, Next to Hotel Novotel,  
Ahmedabad - 380 015.  
Tel No.: 079 2970 5124  
maulik@aipma.net

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Stabilizers				
PE Wax (Recycled)	125	0.1	0.25	0
PE Wax (Primary)	250	0	0	0.4
Oxidised PE Wax	375	0	0.1	0.3
ColorMasterbatch	110	1	1	1
Total Weight		111.10	113.35	110.70
Value of All Ingredients		7,762.50	8,238.75	8,222.50
Compound Cost per KG		69.87	72.68	74.28
% Increase in Compound Cost		Ref.	4.03%	6.31%

The increase into compounding cost on account of use of Ca-Zn vis-a-vis lead is to the tune of 4% and on account of use of Tin is to the tune of 6%.

Resin prices have been range bound between INR 70 and INR 78. Hence we have considered resin prices at INR 73,000 pmt.

### 2. Cost implication due to increase in CAPEX cost:-

In order to process Ca-Zn stabilizers, the pipe processors will have to incur initial capital expenditure, like change of screw-barrels of the existing machines, installation of new mixer to avoid contamination. The industry is segmented into small, medium and large enterprises, with nearly 70% of the industry consisting of small and medium enterprises.

We have assumed the CAPEX only on account of change of screw-barrels. As the industry players are widely segmented, we have assumed CAPEX per 100 MTPM capacity. This CAPEX does not include other cost on account of installation of additional mixers and other ancillary costs.

Basis : 100 MTPM capacity of PVC pipes	
Capex for 1 no. screw barrel (INR)	900000
Expected Payback period (months)	12
PVC pipes produced in 12 months (MT) (40% X 1200 MTPA)	480



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Capex Cost loaded on to the product (Depreciation) (INR/MT)	1875
% Increase in Cost	2.68%

### 3. Cost implication due to increase in cost on account of low productivity :-

Due to the difference in stabilization efficiency and processing window with Ca-Zn stabilizers, there is a cost increasing on account of low productivity and also increase in scrap generation. This is estimated at ~10% of the overhead costs of INR 10,000 PMT i.e. INR 1000 PMT. This translates into 1.5-2 % cost increase.

The overall cost increase is estimated to be 8-10% for replacing lead stabilizers with ca-zn/tin stabilizers in manufacturing of PVC pipes and fittings

The current consumption of lead stabilizers for processing PVC pipes in India is estimated at 75,000 MTPA. The consumption of non-lead stabilizers for processing PVC pipes pipe in India is estimated at 5,000 MT. The recently installed/envisaged/yet to commission capacity of non-lead based stabilizers in India is estimated 50,000 to 55,000 MT. India is dependent on imports from China and Europe for major raw material used in production of non-lead stabilizers.

With our above submission on behalf of the stake holders, we submit that the Industry understands the need for shift from lead based stabilizers to non-lead based stabilizers. However, with majority of the stake holders being small and medium players, the industry request MoEF&CC to arrive at a more pragmatic and achievable timeline to phase out the use of lead stabilizers in the PVC pipes.

Thanking you,

Yours faithfully,

**For The All India Plastics Manufacturers' Association**

*C.N. Turakhia*

**Chandrakant Turakhia**  
President