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Plastics: An Important Driver for the Test and Measuring Instruments (TMI) Industry

With research and development taking place in plastic materials every day, we are getting plastic materials exactly as we dream of.

Plastics play a very significant part in success of every product development and the lead time from concept to design to production have come down because of use of plastics says Kamal Goliya CEO, Meco Instruments Pvt. Ltd., Mumbai in dialogue with ET POLYMERS

■ *How do you see the test and measuring instruments market in India and how do you see it evolving from here?*

The testing and measuring instru-

ments market is strategically very important for every industry to maintain its competitive advantage. To win we have to perform. To know how well we perform we have to measure. The testing and measuring industry plays the role of the "umpire" to let the management know how well their plant or facility is performing.

Several inputs measured, analyzed from the M.I.S reports generated, help the management to decide their cost, consumption, cut-throat price and performance of their entire operations.

The testing and measuring instruments contribute to close to 3-4 per cent of the total project cost in most of the power projects. Though, not a very significant cost in terms of the investment, it can make a lot of difference on the balance 96-97% of the investments if one does not pay proper attention to it.

■ *How much of plastics do you use in the manufacture of you instruments?*

A major portion of our product development success in terms of time and cost is attributed to the increasing use of plastics. Plastics constitute form roughly over 30-40% by weight in most of our products. We use from micro precision moulded parts, instrument casings to packaging all made out of plastics.

■ *Has use of plastics changed the functionality, safety and cost of TMI?*

We have changed many components from metal to plastics - be it A.B.S., polycarbonate, nylon, derlin or polystyrene. We have many success stories. Cost control has been possible mainly with the increasing use of plastics because of which prices of some of our instruments have remained same for over a decade. We had to do a lot of re-engineering and switch over from metal to plastics wherever possible.

■ *Product design has gone through a sea of change in the last decade. How instrumental is plastics in this change of design?*

Plastics play a very significant part

Micro-presicion moulded plastic movement vs an aluminium assembly resulting in benifits such as labour savings, consistency and mass production.

Plastic vs zinc diecasting of an internal moving iron meter part

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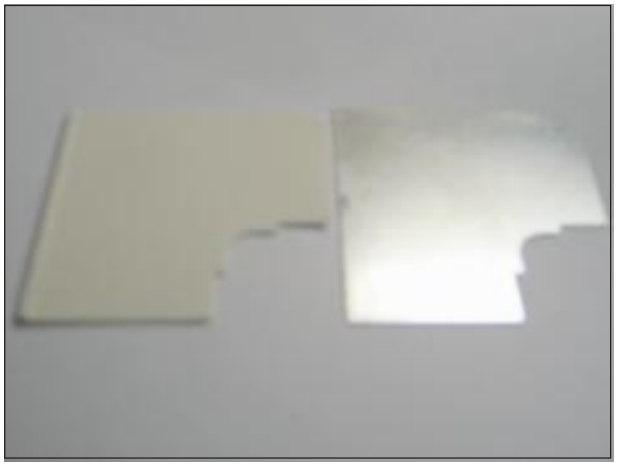
Metal die casted mounting bracket (left picture) consisting of 12 parts versus plastic mounting bracket (right picture).



Plastic scales vs aluminium scales.

Plastic support pillars vs brass pillars.

in success of every product development. The lead time from concept to design to production have come down because of use of plastics. For example earlier if a casing of a measuring instrument had to be made, one would have had to deal with a metal fabricator and almost break his or our head till the job got finished. One had to deal with mostly small garage based companies, very few of which would understand accuracy, mass production and cost. With the advent of use of plastics, once a mould is designed, one can mould as much as one wants and have the same consistency of quality, on time delivery and cost.

We use from micro precision moulded parts, instrument casings to packaging all made out of plastics.

■ *From a global perspective, could you though some light on the use of plastics in the power sector?*

With research and development taking place in plastic materials every day, we are getting plastic materials exactly as we dream of. Base materials, compounds, plasticisers, additives etc. all mixed together give you just the kind of properties that one can imagine. Use of high insulating and flame retardant properties in the plastic materials make the plastics safer for use in the power sector. The power sector has to grow at a rapid pace in order to keep pace with the national development programmes.

Plastics are being increasingly used in power transmission and distribution segments. Erection of towers, sub-stations, panels etc becomes easy and fast because of the modularity of the plastic components used. Energy meters required to achieve 100% metering as per the directives of the A.P.D.R.P. reforms are mostly made of plastics. They are being installed at the rate of millions of pieces per month all across the country.

■ *How do you see future trends?*

In this competitive world, if times are good, people like to modernise by replacing old instruments with new ones so that they maintain their lead. If times are bad, people cannot afford to remain behind and keep loosing.

It is always a boom if you know your business well. I see the testing and measuring industry especially related to power sector growing at over 25% per annum for the next five years for sure.