Editorial

Circular Economy for Plastics: New Thoughts

Under the title of Circular Economy for Plastics: New Thoughts, the Society of German Engineers (VDI) has published a green paper for Circular Economy. The VDI Director Ralph Appel and Christian Haessler, the Head of Global Circular Economy Programme with Covestro, clarified and explained from what the concept has come up. On the query as to how with the plastics the transformation the circular value production can succeed. As per Haessler, plastics play a decisive role in industry and society in future still more because without plastics we cannot be effective. We must economise our resources and become climate friendly and in course of that we require plastics as solution. This begins with polymers for solar module and rotor blades upto construction conceptions. Synthetics go to the consumer branches; mainly the plastic industry has the assignment as capable of acting in automobile construction; in electro technique, contribution to the trade for sustainable solution. Plastics must be safely sustainable and therefore must not contribute to the dumping of wastes in the environment; the answer to this problem situation is in the circular economy.

Plastic is a very special multifarious material, has a totally different property other than steel, metal or glass. We therefore require entirely new arrangement. We can here plead for an innovative challenge. There is a number of challenges with the deposits of recyclate. Our materials are five to ten years or more in deposits worldwide. These must be found out collected, sorted and must be in very high degree of purity in existence in order these to be able to be used as raw materials for the production. Additive and colour mixture bestow on the plastics wholly varying properties. That is straight one strength of the plastics. When these mix together, the property profile of the mix is changed. These are then often to be put in original application. The materials must be most probably pure and the flow of quantity must be sufficiently voluminous.

The mechanical recycling is established very well only for a few plastic types but at the same time not even for all types. We have specially at the covestro among others polyurethane for soft and or hard foams which are unbelievably difficult to recycle. Mechanically it cannot be done. Here other recycling process is necessary as for example chemical process. But these recycling processes must be transformed climate-friendly; these may not call for enormous energy input. Climate neutrality must therefore go hand in hand without which it has no meaning at all and it must be self-supporting financially. Such products are mostly only at the cost of certain additional expenses that befall on all partners along the value production chain.

About what can possibly be the role of the engineers in regard to the circular economy for plastics, the following viewpoints of Mr. Haessler and Appel to be of use? This is a total economic and social challenge that we are in need of every technical competency. From the engineering disciplines an active constructive role in respect of transformation of the circular economy is highly expected. It is important that we bring in along with this the innovative potential. Mr. Appel's viewpoint is it gives serious interest of all stakeholders of deliverers about the products. The business and the policy on the different stages of the production chain in order to adopt this subject and to transform. We have also not heard much about green washing in course of the processes. What actually still must be clarified is where from really the energy comes for that. Is that green? Naturally that is green and must be at the end green.

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