

PRESS RELEASE

Number 32

K 2010

WACKER Presents New Self-Adhesive HCR Silicone Rubbers for Hard-Soft Combinations

Munich, June 14, 2010 – At the 18th International Trade Fair for Plastics and Rubber (K 2010) WACKER, the Munich-based chemical group, will be introducing new self-adhesive high consistency silicone rubber grades (HCR) for the cost-effective coextrusion or molding of hard-soft material combinations. The silicone products bond to different metal and plastic substrates without the need to pretreat the substrate surface. ELASTOSIL[®] R *plus* 4370 self-adhesive extrusion grades allow the one-step production of hard-soft profiles. ELASTOSIL[®] R *plus* 4070/60 molding grade can significantly increase productivity of multicomponent parts in small to medium production runs. K 2010 will take place from October 27 to November 3 in Düsseldorf, Germany.

To achieve good silicone substrate adhesion and therefore a firm bond, it used to be necessary first to prepare the surfaces of metall substrates mechanically and with an adhesion promoter. This represented an additional work operation.

The new self-adhesive silicone grades avoid this with an innovative, patented bonding technology that produces a firm bond without any pretreatment. In the multicomponent part, the silicone is directly chemically bonded to the hard component. The bond develops rapidly

during vulcanization. With no time-consuming, error-prone pretreatment, two-component parts and profiles can be produced faster, more simply and therefore more cost effectively. There are no associated solvent emissions nor are there any costs for adhesion promoters.

The new self-adhesive HCR silicone rubber grades cure by platinum-catalyzed addition to achieve good to very good mechanical properties. Silicones can be bonded to a variety of substrates, such as many metals, particularly aluminum and steel, and various plastics and elastomers.

ELASTOSIL® R *plus* 4370 extrusion grades are two-component products regarding the platinum catalyst. The bonding system in these HCR silicone grades ensures bonding to the hard component during vulcanization. Since no pressure is required, they can be coextruded with the hard component. A permanent bond forms between the two components in the heating tunnel. The process allows two-component profiles to be produced rapidly in a one-step, largely automated process – with no pretreatment or adhesive.

Tailored for Molding: ELASTOSIL® R *plus* 4070/60

The one-component ELASTOSIL® R *plus* 4070/60 is tailored for conventional molding processes, with the aim of offering a flexible process for manufacturing small runs of two-component parts.

The HCR rubber is formulated to adhere firmly to the hard component during vulcanization, but not to the tool. By eliminating primer, processors can achieve higher productivity.

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The composite part can thus be produced more cost effectively than with a conventional HCR silicone, even in small to medium production runs.

Visit WACKER at K 2010 in Düsseldorf. You'll find us in Hall 06, Booth A10.



At K 2010, WACKER is presenting the new high consistency silicone rubbers (HCR) ELASTOSIL[®] *plus* 4370 and ELASTOSIL[®] *plus* 4070/60. They are used to produce hard-soft combinations by conventional molding or coextrusion. (Photo: Wacker Chemie AG)

Please note:

This photo is available for download at:
<http://www.wacker.com/presseinformationen>

For further information, please contact:

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The company in brief:

WACKER is a globally-active chemical company with some 15,600 employees and annual sales of around €3.7 billion (2009). WACKER has 26 production sites and over 100 sales offices worldwide.

WACKER SILICONES

Silicone fluids, emulsions, rubber and resins; silanes; pyrogenic silicas; thermoplastic silicone elastomers

WACKER POLYMERS

Polyvinyl acetate and vinyl acetate copolymers in the form of dispersible polymer powders, dispersions and solid resins used as binders for construction chemicals, coatings, adhesives, paints, plasters and nonwovens

WACKER BIOSOLUTIONS

Biotech products such as cyclodextrins, cysteine and biologics, as well as fine chemicals and PVAc solid resins

WACKER POLYSILICON

Polysilicon for the semiconductor and photovoltaics industries

Siltronic

Hyperpure silicon wafers and monocrystals for semiconductor devices