

## A combination formed for the future

Who doesn't seek materials and processes that provide technological leadership as well as production with cost and process optimisation? Optimisation of existing systems is a limited option. But in order to remain constantly at the peak, new paths have to be followed and existing processes combined with new methods and materials to form an entirely new entity.



Megol AM DP 2501 and  
Polyman (ABS) M/AQ  
LE K1671 in  
KraussMaffei's  
ColorForm application

**API Applicazioni Plastiche Industriali S.p.A.** in Mussolente, Italy, and **A. Schulman GmbH** in Kerpen, Germany, are showing together with **KraussMaffei** and other partners at the K 2010 fair a new **ColorForm** process by means of which such a path can be taken through combination of injection moulding, reaction technology and intelligent machinery technology.

ColorForm shows that such success can only be achieved if the competence of the partners is combined with innovative and new materials in interdisciplinary cooperation applied to the process chain already at an early stage. The result will be presented at the K fair with an example of a briefcase.

### Combination of properties

A key factor was adhesion between the three different material components:

Thermoplastic support  
TPE  
Polyurea lacquer system

A large contribution has been made here by the innovative thermoplastic elastomer **Megol AM DP 2501** from API, which is distributed by A. Schulman.

The requirements presented a large challenge to the developers. Aside from excellent adhesion to Schulman's **Polyman M/AQ LE K1671** grade of ABS thermoplastic and compatibility to the polyurea system, great emphasis was placed on scratch and writing resistance, alongside a balanced mechanical property profile, simultaneously with an attractive price level.

This resulted in Megol AM, a TPE compound adapted as an adhesion partner to Schulman's Polyman ABS, combining the high demand for excellent adhesion, good flow, outstanding mechanical properties and a matt surface, with an attractive price. API has again been able to demonstrate its competence in the area of adhesion-modified TPE materials for multi-component technology through its successful implementation within this project. The new Megol AM product family introduced at the K 2010 fair should underline the competence with which increasing customer requirements are met in this area.

Megol AM type	DP 2501	DP 2392	DP 1741	DP 2339	DP 2268	DP 2217
Shore hardness	30°~ 90°A	30°~ 85°A	35°~ 85°A	50°~ 85°A	55°~ 85°A	60°~ 85°A
Hard component						
Polyman ABS	X	X				
Schulablend		X				
Schulamid 6			X	X		

Schulamid 6.6			X	X		
Schulamid 12					X	
Schuladur PBT/PET						X
Polyvin (PVC)		X				

### About ColorForm

The ColorForm process combines 2C-injection moulding with a polyurethane flow-coating in the same mould, the substrate with partial TPE surface and partial polyurea high-gloss painting. Target market for the technology are all kinds of plastic components with optical, tactile, decorative and functional surface properties, made for example for the automotive and electrical/electronics sectors.

Visitors at K 2010 can see a live demonstration of the ColorForm process with the production of the above-mentioned briefcase at the KraussMaffei stand in hall 15, stand C24.

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### Adresse:

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