coperion
confidence through partnership

compounding & extrusion
materials handling
service

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**Press Release**

# Even better performance: new version of Coperion's Kombiplast KP already in operation

*Stuttgart, May 2015* – The Kombiplast KP compounding system from Coperion, Stuttgart, Germany, is now available in a revised version with considerably improved performance. More compact and more energy-efficient than its predecessor, this new model achieves even better product quality at an even higher throughput rate. The Kombiplast features gentle compounding of heat and shear sensitive plastics. This two-stage compounding system comprises a ZSK twin screw extruder equipped with a ZS-B twin screw side feeder and an ES-A downstream single screw discharge unit which gently builds up sufficient pressure for the subsequent pelletizing operation in the EGR eccentric pelletizer. In its search for a compounding system for PVC, the Italian fittings manufacturer Formatura Iniezione Polimeri S.p.A. (FIP) was very impressed by the performance of the Kombiplast. The first unit of the new, improved series – a KP 62 Mv PLUS/200 – has already been put into operation at the FIP facility in Casella, Italy. Featuring a screw diameter of 62 mm, the extrusion system at FIP is being used for the compounding of tailor-made rigid PVC compounds at a throughput rate of up to 1,600 kg/hour. The PVC compound is then injection-molded into valves for pipe system fittings. FIP's core competence is the production of high-quality fittings for piping technology, especially valves and other molded parts, in such thermoplastics as PVC-U, PVC-C, PP-H, and PVDF.

An important innovation featured in the Kombiplast is Coperion's patented Feed Enhancement Technology (FET), which is incorporated in the ZS-B twin screw side feeder. There the feeding zone is provided with a porous, gas-permeable wall section to which a vacuum is applied externally, permitting extraction of the air between the particles and hence considerably improving the material intake capacity in the processing of feed limited products, such as dry

blends. This improvement to feed behavior has a positive effect on operating reliability and hence on the production rate and the quality of the compound.

Another part of the system that has undergone fundamental improvement is the ES-A single-screw discharge unit, the cylindrical barrel is now cooled with water instead of with a cooling fan. The result is a reduction in electricity consumption and an improvement in the accuracy with which the temperature profile can be set and controlled. The ES-A is now driven by a geared motor, thus permitting a reduction in the height of the machine base. Consequently, the new Kombiplast is more compact, more clearly arranged and takes up less space than its predecessor. For better pelletizing performance, both the drive and the rotor bearings of the EGR eccentric pelletizer have been improved: the knives can be set more accurately, thus ensuring a consistently uniform length of chopped pellet.

Coperion's Kombiplast offers a great many advantages when it comes to the compounding of heat and shear sensitive polymers. These advantages range from the short and definable residence time profile of the material in the extruder process section to the rapid and easy cleaning of the system and the ready adaptation of the system to new tasks. Typical areas of application are the stable, energy-efficient compounding of flexible and rigid PVC, the production of special-purpose compounds such as halogen-free, self-extinguishing formulations for cables (HFFR) or elastomer-based compounds for the production of low, medium and high voltage cables.

Coperion (www.coperion.com) is the international market and technology leader in compounding systems, feeding technology, bulk materials handling systems and services. Coperion designs, develops, manufactures and maintains systems, machines and components for the plastics, chemicals, pharmaceutical, food and minerals industries. Within its four divisions – Compounding & Extrusion, Equipment & Systems, Materials Handling and Service – Coperion has 2,500 employees and nearly 40 sales and service companies worldwide.

The Italian firm of FIP Formatura Iniezione Polimeri S.p.A. (www.fipnet.it) is based in Casella (near Genoa) and since 1954 has been producing high-quality pipe fittings and valves in thermoplastics. FIP manufactures its products entirely itself, from the compounding of the polymer material through to the moulding of the finished products.

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*The Italian pipe fittings manufacturer FIP Formatura Iniezione Polimeri S.p.A., based in Casella, Italy, is using the new Kombiplast KP – a KP 62 Mv PLUS/200 – to produce tailor-made rigid PVC compounds at a production rate of up to 2,000 kg/h.*

*Photo: Coperion, Stuttgart*