

KREYENBORG presents Infrared-Rotary Drum for various applications in plastics processing and recycling

## Economical and Gentle PET Decontamination with the IR-CLEAN®

At its exhibition stand, KREYENBORG GmbH & Co. KG from Senden, Germany, will show its IRD B 180/270-135, thus representing all kinds of Infrared applications in the plastics processing and recycling industry. Individual, tailor-made infrared rotary drums are available for pre-heating, crystallization, drying and coating of virgin materials. KREYENBORG has developed the IR-CLEAN® especially for degassing and decontamination processes of PET post-consumer bottle flakes. This particularly economical solution for the treatment of recycling material, which has already been awarded a Letter of Non-Objection by FDA and positive results by EFSA, will be one of this year's highlights at K'2019, stand A55 in hall 9.

Apart from complete production lines for bulk material handling processes, infrared rotary drums are the key competences of KREYENBORG GmbH. Several hundreds of these systems have already been installed world-wide in the plastics processing industry alone. Their fields of application are as manifold as the designs selected by each specific customer individually. But the one thing they all have in common is their functional principle: the PET post-consumer bottle flakes are poured into the rotary drum through a volumetric dosing system. Inside the drum, an in-welded helix and the continuous rotation ensure a homogenous material flow at a pre-defined residence time (first-in – first-out principle). At the same time, the material is mixed and a revolution of the surface takes place permanently, which causes the infrared elements positioned above the material bed to achieve a quick and even heat-up result. Infrared rotary drums work without any expensive vacuum technology and are designed according to each customer's individual requirements as to their size and length. They can be designed either as a stand-alone solution or as a unit to be incorporated into a new or an existing extrusion line. The IRD B 180/270-135 that will be exhibited has a diameter of 180 cm, a length of 2.7 m and is perfectly suited for material flows of up to 800 kg/h.



PIC 01: The Infrared Drum





KREYENBORG's IR-CLEAN® is a very specific development of an infrared rotary drum especially for the treatment of PET recycling material. Its tailor-made geometry, the targeted process control and a special control unit make the IR-CLEAN® an ideal drying and decontamination unit for PET recycling material. This has been confirmed by a Letter of Non-Objection issued by the American FDA Authority and by several challenge tests, which have proven conformity with the criteria of the European EFSA. PET recycling material, which has been dried and decontaminated in the IR-CLEAN®, can be used for packaging that comes directly in contact with the foodstuff. Consequently, the IR-CLEAN® itself, which works perfectly without any specific additional equipment and in a very energy-efficient manner, but also the material cycle it closes and which preserves resources without any loss in quality, both represent a sustainable solution.



PIC 02: IR-CLEAN®

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