

## **IR-CLEAN®: FDA Approval for KREYENBORG Infrared Rotary Drum**

**If Post Consumer Recycling Materials are to be processed directly into PET Sheet, with a process authorized by FDA or by EFSA is an indispensable solution required. With its IR-CLEAN® System, KREYENBORG now offers an attractive and low-cost alternative for Post-Consumer Materials and direct decontamination processing of PET – without any kind of vacuum technology.**

The system is an advanced development in the process technology of the well-proven IRD Infrared Rotary Drum used in hundreds of industrial applications. The standard process of crystallization and drying of PET Post Consumer Bottle Flakes in the IRD has been refined by various changes in the process parameters and technical modifications – this has resulted in outstandingly good decontamination results which have been proven in tests in collaboration with the Fraunhofer Institute for Process Engineering and Packaging IVV. The Food + Drug Administration FDA has issued a Letter of Non-Objection on the basis of these values. These results can also be used for the limits, fixed on behalf of the European Food Safety Authority EFSA – depending on the use of the end product up to 100% of Post-Consumer material.

The key to these good results lies in the general functional principle of the Infrared Rotary Drum – the low mass in the process and the continuous movement of the material ensures a continuous surface exchange of the recycling material to be treated. Combined with the direct heat input from the Infrared light, which generates high temperatures within a few minutes, the IR-CLEAN® concept needs no expensive and high-maintenance vacuum systems. IR-CLEAN® combined with a downstream Finisher, that takes the form of a desiccant air drier, giving drying values of <50ppm. The IR-CLEAN® system achieves the FDA / **EFSA** values already upstream of the extruder, facilitating easy retrofitting and, thus, an FDA / **EFSA** approval of existing single-screw, twin-screw or multi-screw extrusion systems. The package, developed by KREYENBORG comprises not only the conveying technology, but also complete process monitoring and documentation of the process parameters.





**Picture: IR-CLEAN®**

Further Information:

[www.kreyenborg.com/en/produkte/plastic-and-chemical-ird-infrared-dryer/](http://www.kreyenborg.com/en/produkte/plastic-and-chemical-ird-infrared-dryer/)

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