

HIGH-PERFORMANCE CERAMICS

RECTANGULAR TUBES

Application:

Printing Industry

Material:

Aluminium Oxide (Al₂O₃) **DEGUSSIT AL23**

Many materials used in foil manufacturing exhibit poor wettability with liquid dyes. Typical plastics, namely polypropylene (PP), polyethylene (PE), polyvinyl chloride (PVC), as well as the metal coatings on some plastic materials, do not easily absorb the printing dyes.

In order to improve wetting properties, the foils are thus subjected to so-called corona pre-treatment prior to the printing process. Here, the foil is passed through a high-voltage field between an insulated electrode and an earthed roller attached to the foil. As a result of the high voltage of approximately 20 kV, electrical discharges occur between the electrode and the roller, and the air is ionised. The resulting plasma leads to oxidative activation of the foil surface. In this way, adhesion of the dye solution is considerably improved, thus enabling subsequent printing to be carried out. Corona tubes made of Aluminium Oxide **DEGUSSIT AL23** are primarily used for the pre-treatment of conductive materials, such as aluminium foils or metallised foils. In general, the tubes have a rectangular cross-section.



Rectangular tubes for corona treatment must meet extremely high standards in terms of dimensional stability and dielectric strength. Through visual and dimensional inspections, KYOCERA meets these standards to 100 percent.

Deflection of less than 0.5mm/m is guaranteed. Furthermore, this special material ensures a homogeneous structure, resulting in increased material density (>3.9kg/cm³). A 25kV test is also available upon request.

- ▶ Electrically insulating
- ▶ High dielectric strength
- ▶ High mechanical resistance

Competence in Advanced Ceramics
Engineering for customized solutions
