GfE
Metalle und
Materialien GmbH

Y_2O_3
YTTRIUMOXIDE

COATING MATERIALS

Application
Y_2O_3 are a substance for the production of transparent optical films with high refractive index. Y_2O_3 films are very hard and wear resistant with good adhasion on the substrate.

Purity
Y_2O_3 > 99.9%

Suggested Evaporation Method
electron beam

Forms of Delivery
granules, tablets

Typical Analysis in wt%

Y_2O_3	99.9%
Al_2O_3	< 0.002
Cl	< 0.002
CaO	< 0.002
CoO	< 0.002
Cr_2O_3	< 0.002
CuO	< 0.002
Fe_2O_3	< 0.002
MgO	< 0.002
MnO	< 0.002
MoO_3	< 0.002
Na_2O	< 0.002
Nb_2O_5	< 0.002
NiO	< 0.002
P_2O_5	< 0.002
PbO	< 0.002
SiO_2	< 0.03
SnO_2	< 0.002
Ta_2O_5	< 0.002
TiO_2	< 0.002
V_2O_5	< 0.002
WO_3	< 0.002
ZnO	< 0.002
ZrO_2	< 0.005

Physical and optical properties

melting range:	~ 2400 °C
approx. evaporation temp.	4300 °C
theoretical density:	4.84 g/cm³
density supplied	2.8-3.0 g/cm³
refractive index	1.85

(depending on substrate temperature and wavelength)

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