



SCHUNK GmbH & Co. KG  
Report No. SC 0804-432

# Cleanroom<sup>®</sup> Suitable Materials

**PET-GL**

Particle (vs. X8CrNiS18-9, Klübers. BEM 34-32): **ISO 5**  
TVOC (23°C/90°C): **not tested**

## Robotics & Handling

DUPLICATE

### Qualification Certificate

We hereby certify that the material stated below which was provided by

**SCHUNK GmbH & Co. KG**

Bahnhofstr. 106 - 134  
D-74348 Lauffen/Neckar

has been awarded the Fraunhofer IPA CSM Certificate of Qualification with the report number SC 0804-432.


The tests performed in accordance with CSM procedures included particle emission during the application of frictional stress and determination of the ESD value (surface resistance).

Material (Mat.)	PET-GL	
Particle	Ball-on-disc test; Normal force 20 N Mat. vs. X8CrNiS18-9 (Lubricant Klübersynth BEM 34-32)	ISO Class 5 (see ISO 14644-1)
Outgassing at 23 °C / 73 °F	not tested	-
Outgassing at 90 °C / 194 °F	not tested	-
ESD	Surface resistance	2.0 x 10 <sup>13</sup> Ohm

Detailed information regarding the test environment and parameters used can be obtained from the CSM Test report number SC 0804-432 issued by the Fraunhofer-Gesellschaft.

The validity of this certificate is indefinite. For more information, visit our website at [www.ipa-csm.com](http://www.ipa-csm.com).

Stuttgart, Germany, November 11<sup>th</sup> 2008

i. A.   
Signature project manager



**Fraunhofer** Institut  
Produktionstechnik und  
Automatisierung