



Data Sheet for Calibration Plates supported by MERLIC (Product Id. 20118-20125, 20977-20978)

| Characteristic | Ceramic Plates | Glass Plates | Float Glass Plates | Alu/Plastic/Alu Plates |
|---|----------------------------|---------------------------|---------------------------|------------------------------|
| Layer | Chromium + Chromiumoxide | Chromium + Chromiumoxide | not specified | not specified |
| Material | Nextrema 724-8 | B270 | Float Glass | Core: Polyethylene type LDPE |
| Density | 2.55 g/cm ³ | 2.55 g/cm ³ | 2.5 g/cm ³ | 0.92 g/cm ³ |
| Surface roughness | Ra <=0.20µm | not specified | not specified | not specified |
| Thermal expansion coefficient (20 - 300 °C) | 0.01 × 10 ⁻⁶ /K | 9.5 × 10 ⁻⁶ /K | 9.1 × 10 ⁻⁶ /K | 24 × 10 ⁻⁶ /K |
| Refractive index ne | - | 1.5251 (546 nm) | - | - |
| Transmittance | - | 0.9 (546 nm) | - | - |
| Reflection | not specified | ca. 0.05 (546 nm) | not specified | not specified |
| Water absorption | 0% | not specified | not specified | not specified |
| Hydrolytic class (DIN 12111) | 1 | 3 | not specified | not specified |

Calibration marks:

All plates have 27 × 31 circular marks with 5 finder patterns.

Plate data:

Description data for the plate can be used in the camera calibration of HALCON 12 and higher HALCON versions as well as MERLIC.

Accuracy:

MVTecs ceramic and glass calibration plates of the sizes 20 mm to 80 mm are manufactured with lithographic technologies derived from semiconductor production. The copy template used within the lithographic technologies has an accuracy of 0.15. The description files of the calibration plates of the sizes 160 mm and 320 mm are individually checked based on a calibrated optical setup.

MVTec provides no third-party certificates for the accuracy of calibration plates. If customers need a third-party certificate it is their responsibility to perform such a certification process at an appropriate authority.