



Measured Value	Method/Apparatus	Temperature °C	Material/Sample Size in mm/ml	Additional Information	Contact	Institute	e-mail	WWW
infrared optical values	directional emittance	200 ... 1600	solids, coatings 30 x 30 ... 50 x 50	angle: 0° ... 70° atmosphere: air, inert gas, vacuum wavelength: 1 ... 18 µm	Dr. Jochen Manara	ZAE Bayern	jochen.manara@zae-bayern.de	www.zae-bayern.de
infrared optical values	directional-hemispherical reflectance	0 ... 100	solids, coatings, powders, liquids min. 30 x 30 or Ø: 30	atmosphere: air wavelength: 0.25 ... 35 µm	Dr. Jochen Manara	ZAE Bayern	jochen.manara@zae-bayern.de	www.zae-bayern.de
infrared optical values	directional-hemispherical transmittance	0 ... 100	solids, coatings, powders, liquids min. 30 x 30 or Ø: 30	atmosphere: air wavelength: 0.25 ... 35 µm	Dr. Jochen Manara	ZAE Bayern	jochen.manara@zae-bayern.de	www.zae-bayern.de
infrared optical values	directional-directional reflectance	-269 ... 100	solids, coatings 30 x 30 ... 50 x 50	reflexion angle: 10° ... 70° atmosphere: air, inert gas, vacuum wavelength: 0.5 ... 500 µm	Dr. Jochen Manara	ZAE Bayern	jochen.manara@zae-bayern.de	www.zae-bayern.de
infrared optical values	directional-directional transmittance	0 ... 800	solids, coatings 30 x 30 ... 50 x 50	atmosphere: air, inert gas, vacuum wavelength: 0.5 ... 500 µm	Dr. Jochen Manara	ZAE Bayern	jochen.manara@zae-bayern.de	www.zae-bayern.de
infrared optical values	extinction coefficient and albedo	-269 ... 1600	in-house sample preparation	wavelength: 1.4 ... 35 µm	Dr. Jochen Manara	ZAE Bayern	jochen.manara@zae-bayern.de	www.zae-bayern.de
infrared optical values	complex index of refraction	0 ... 800	solids, coatings 30 x 30 ... 50 x 50	wavelength: 1.4 ... 35 µm	Dr. Jochen Manara	ZAE Bayern	jochen.manara@zae-bayern.de	www.zae-bayern.de
infrared optical values	spectral directional emittance FT-IR	100 ... 300	solids, coatings Ø: 150	polar angle: 0° ... 70° atmosphere: vacuum wavelength: 5 ... 27 µm	Prof. Dr. Stephan Kabelac	HSU Hamburg	kabelac@hsu-hh.de	www.hsu-hh.de/ thermodynamik
infrared optical values	directional spectral emissivity; spectral comparison of radiances of sample and reference blackbody	80 ... 500	solids, coatings Ø: 40 ... 120 thickness: < 10	angle: 0° ... 80° atmosphere: air wavelength: 3 µm ... 40 µm	Dr. Christian Monte	PTB	christian.monte@ptb.de	www.ptb.de
infrared optical values	directional total emissivity; comparison of spectrally integrated radiances of sample and reference blackbody	80 ... 500	solids, coatings Ø: 40 ... 120 thickness: < 10	angle: 0° ... 80° atmosphere: air	Dr. Christian Monte	PTB	christian.monte@ptb.de	www.ptb.de
infrared optical values	hemispherical emissivity; comparison of spectrally and hemispherically integrated radiances of sample and reference blackbody	80 ... 500	solids, coatings Ø: 40 ... 120 thickness: < 10	atmosphere: air	Dr. Christian Monte	PTB	christian.monte@ptb.de	www.ptb.de
infrared optical values	directional emittance	700 ... 1500	solids, coatings Ø: ~ 15 thickness: ~ 4 ... 6	atmosphere: air, inert gas, vacuum wavelength: 0.5 ... 8 µm	Marc Linder Dr. Rudi Kulenovic	IKE, Universität Stuttgart	marc.linder@ike.uni-stuttgart.de / rudi.kulenovic@ike.uni-stuttgart.de	www.ike.uni-stuttgart.de
infrared optical values	high resolution IR camera				Jan König	Fraunhofer IPM	jan.koenig@ipm.fraunhofer.de	www.ipm.fraunhofer.de
infrared optical values	FT-IR	RT ... 200	thin films and solids		Jan König	Fraunhofer IPM	jan.koenig@ipm.fraunhofer.de	www.ipm.fraunhofer.de