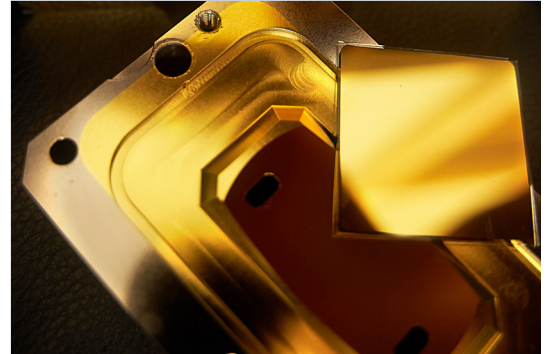




# Goldflex™

## Ultra efficient Broadband IR Gold Mirror

All types of optical sensing devices utilize light, which needs to be routed by mirrors. To optimize this, Goldflex™, a gold based metallic mirror is recommended. This gold mirror offers the broadest spectral range of any mirror. It is characterized by excellent reflectivity and lowest polarization dependence in IR-wavelength range. Although the reflectance is lower in the visible range, it is still greater than 90% at 633nm for beam steering with HeNe laser.



### Benefits

- High reflectivity up to 99%
- Excellent environmental durability
- Suited for applications with temperature sensitive substrates
- EU RoHS directive compliant

### Applications

Beamsteering/Scanning IR mirrors

- Laser Processing systems
- Construction & Logistics
- Factory Automation
- Metrology & Inspection
- Environmental Protection
- Safety & Security
- Telekom network systems

### Technical Data

#### Goldflex™ Pro with protective layer

Ravg. > = 97.5% at 800–2000 nm

Rabs. > = 98% at 2000–12000 nm

AOI = 0°–15°

r-pol.

#### Environmental resistance and durability

The coating withstands the following tests on glass substrates

#### Temperature

(MIL-M-13508C, para. 4.4.4.)

5 hrs each at –62° and +71°C

(ISO 9022-2)

16 hrs at –62° and 2 hrs at +71°C

#### Abrasion

(MIL-M-13508C, para. 4.4.5.)

50 strokes/cheesecloth

(ISO 9211-4-01)

50 strokes/cheesecloth

#### Adhesion

(MIL-M-13508C, para.4.4.6.)

Scotch tape test, slow

(ISO 9211-4-02-01)

2–3 s/25 mm/tape 3M

#### Humidity

(MIL-M-13508C, para. 4.4.7.)

24 hrs. at 49°C r.h. 95%

(ISO9022-2)

24hrs at +40°C, r.h. 95%

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**Goldflex™ Pro-X without protective layer**

Ravg. > = 98% at 800–2000 nm

Rabs. > = 98.5% at 2000–12000 nm

AOI=0°–15°

r-pol.

**Environmental resistance and durability**

The coating withstands the following tests on glass substrates

**Temperature**

(MIL-M-13508C, para. 4.4.4.)

5 hrs each at –62° and +71°C

(ISO 9022-2)

16 hrs at –62° and 2 hrs at +71°C

**Adhesion**

(MIL-M-13508C, para.4.4.6.)

Scotch tape test, slow

(ISO 9211-4-02-01)

2–3 s / 25 mm / tape 3M

**Humidity**

(MIL-M-13508C, para. 4.4.7.)

24 hrs. at 49°C r.h. 95%

(ISO9022-2)

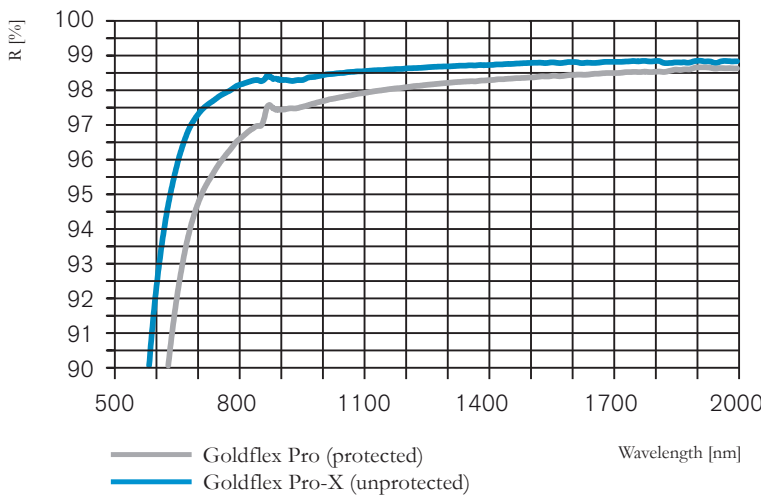
24hrs at +40°C, r.h. 95%

**Substrate type**

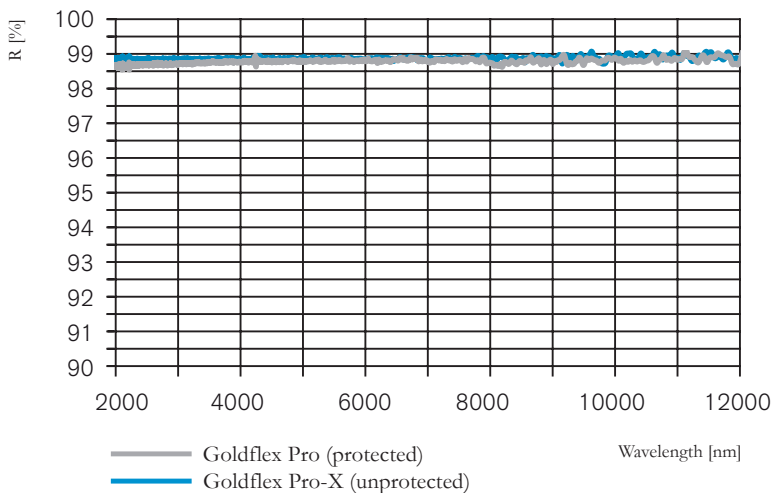
Floatglass, other substrates e.g. plastic or metal on request

Goldflex™ are applicable as well on customer supplied substrates

**Goldflex™ – Reflectance curve at AOI=6°, r-pol between 500 and 2000 nm**



**Goldflex™ – Reflectance curve at AOI=10°, r-pol between 2000 and 12000 nm**



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