

# Reflective ND Glass Filter Series

- Quartz Glass Substrate with Metal Coating & Protection Layer
- Selectable Optical Density from 0.04 to 5
- Different Reflections/Attenuation with Different OD
- 1" Round and 2" Square Available with Low Cost



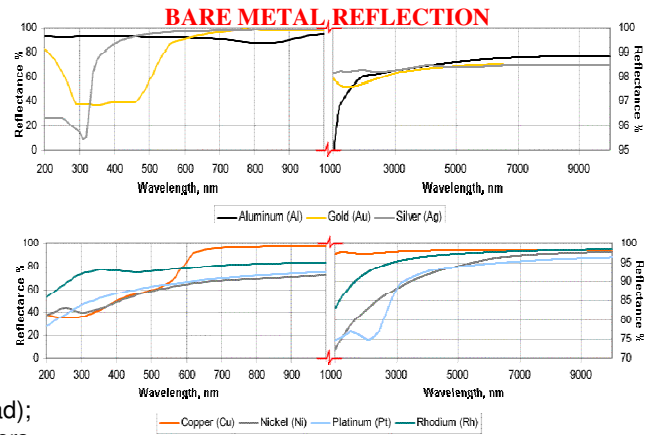
## APPLICATIONS:

- Imaging component;
- Optical measurement systems
- Sensor systems
- Medical systems
- General experimental setup for High power applications(>10W @ VIS band)

### NDF-R-2020U Series 2"x2" square un-mounted



### NDF-R-R10M Series Ø1" round SM1 mounted



## General Specifications:

- Substrate Material:** Quartz glass or BK7 glass  
**Dimension:** Ø25.4mm un-mounted;  
 Ø30mm mounted(1.035"-40 thread);  
 50.8mm x 50.8mm square, or others  
**Design Wavelength:** 200 ~ 2000nm  
**Surface Quality:** 60 – 40 scratch and dig(MIL Standard)  
**Flatness:** ≤ λ per inch  
**Parallelism:** ≤ 1'  
**Optical Density:** 14 types (OD = 0.04 ~ 5)

**Definition: OD = Log (1/T)**  
 OD: Optical Density  
 T: Transmittance

OD	0.04	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.3	2.0	3.0	4.0	5.0
T(%)	91	79	63	50	40	32	25	16	10	5	1	0.1	0.01	0.001

**Density Tolerance:** ±5% @ 546nm

**Note:** Other requests for different OD from this list is available. Users may define the diameter "X", or the length "X" and width "Y" for quotations. Please refer to the ordering information for definition of P/N.

## Application Examples:

1. Un-mounted 25mm filter plate compatible to any other φ1" optics mount.;
2. Ring mountable to 6-position ND filter wheel(as shown in the picture);
3. Ring mounted to φ1" filter mount(as shown in the picture);
4. Multiple one-by-one mounted filters in series for high OD wanted:  
 e.g. OD0.5 + OD2.0 = OD 2.5

## Ordering Information:

**P/N Definition: Series No. + OD**

- Example: "NDF-R-R10M-0.5" means Neutral Density Filter - Absorptive Version - Ø1" round SM1 mounted - OD 0.5  
 "NDF-R-R10-2.0" means Neutral Density Filter - Absorptive Version - Ø1" round SM1 un-mounted - OD 2.0  
 "NDF-R-RX0-3.0" means Neutral Density Filter - Absorptive Version - ØX" round SM1 un-mounted - OD 3.0  
 "NDF-R-2020U-4.0" means Neutral Density Filter - Absorptive Version - 2" x 2" square un-mounted - OD 4.0  
 "NDF-R-X0Y0U-0.1" means Neutral Density Filter - Absorptive Version - X" x Y" rectangular un-mounted - OD 0.1  
 "NDFK-R-R10M" means Neutral Density Filter Kit (14pcs) - Absorptive Version - Ø1" round SM1 mounted  
 "NDFK-R-2020U" means Neutral Density Filter Kit (14pcs) - Absorptive Version - 2" x 2" square un-mounted

## ND FILTER KIT (including 14 types per set)

**P/N: NDFK-R-R10M**  
 Ø1" round SM1 mounted



**P/N: NDFK-R-2020U**  
 2"x2" square un-mounted



## Contact Information:

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