

# Bake out list

| Item                    | Material                                      | Maximum temperature [°C]                      | Comments   |
|-------------------------|---|---|--|
| CF Copper ring          | Copper  | 1084.62                                       | Schmelzpunkt, Wikipedia  |
| Mounting for the spacer | (Al ~ Alplan)                                 | 660.2   |  |
| Zerodur rods            | Zerodur                                       | 600   | Wikipedia  |
| Heat shields            | Aluminium [EN AW-5083]                        | 660.2   | Temperatureinsatz (max. °C bei Dauer / Kurzeiteinsatz): 120/ 180 |
| Window holder           | Aluminium                                     | 660.2   |  |
| Vacuum chamber          | Aluminium                                     | 660.2   |  |
| CF Flanschkit           |   |   |  |
| Glas balls              | Borosilikatglas                               | 500   | maximale Arbeitstemperatur, Wikipedia                            |
| IGP                     |   | 350   |  |
| Lead wire               | Lead  | 327   |  |
| Teflon rings (Windows)  | Teflon  | 327   | Wikipedia  |
| NTC Sensors             |   | 300   |  |
| Angle valve             |   | < = 300                                       |  |
| Viton balls             | Viton   | 280   | Wikipedia  |
| Sub-D Kabel 37FXRR-500  | Kupferdraht versilbert<br>Kaptonband-isoliert | 230   |  |
| Vacuum pressure sensor  |   | 250 without electronics and magnet            |  |
| Gate valve              |   | open: < = 250<br>(max 24h)<br>closed: < = 200 |  |
| Sub-D Socket            |   | 230   |  |
| Sub-D Feedthrough       | Peek  | 230   |  |
| Crimp pins              | Cu vergoldet                                  | 230   |  |
| Capton wires            | Kupferdraht versilbert<br>Kaptonband-isoliert | 230   |  |
| IGP cable               |   | < 220   |  |
| Peltier-elements        |   | 200   |  |

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|---|--------------|--------------------------|--|
| Windows                                   |              | 200                      | <p>Question:<br/>What is the maximum (continuous) temperature which the AR coatings are able to withstand? What is the maximum temperature gradient that can be applied (continuously) between the two faces of the 1/2" 3mm BK7 and fused silica windows?</p> <p>Response from Jeremy at Thorlabs:<br/>The maximum temperature will be around 200°C or so. We do not spec a maximum temperature gradient since it can depend on the thermal boundary conditions and geometrical boundary conditions of the window. However, I would recommend UVFS over N-BK7 because of its much lower coefficient of thermal coefficient.</p> |
| Vacuum glue [Torrseal]                    |              | 175                      | Flammpunkt   |
| Indium wire                               | Indium       | 155                      |  |
| Indium foil                               | Indium       | 155                      |  |
| Vacuum pressure sensor cable              |              |                          |  |
| CF-Kreuz                                  |              |                          |  |
| Screws from the mounting and hield shield | Edelstahl A2 |                          |  |
| ULE Spacer                                |              |                          |  |
| Mirrors                                   |              |                          |  |
| ULE rings                                 |              |                          |  |
| Faraday rotator                           |              |                          |  |
| Glue from faraday rotator                 |              |                          |  |

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