

# Overview of all measurements

Protocoll-No.

M220060

Calculation Fraunhofer

TradeOff

broad (100,0)

Refractive index ---

Absorptions coefficient ---

Material

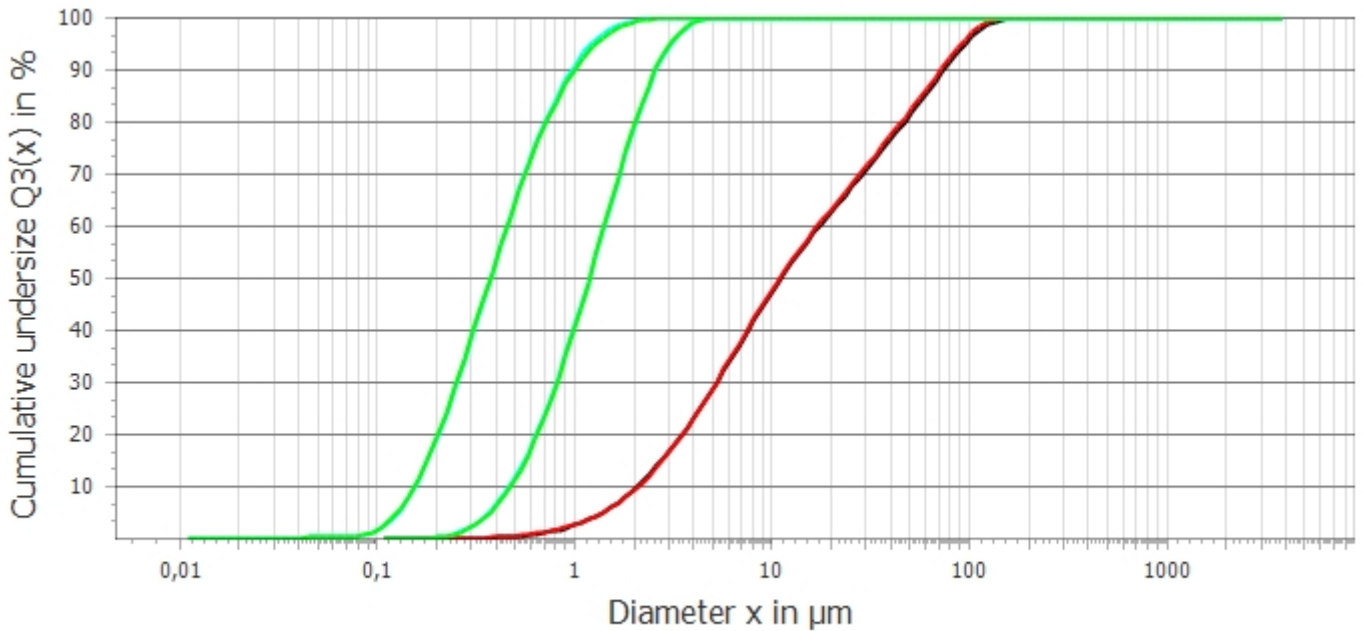
Sinter

Measurement Range 0,01 - 3800 µm

Pump 35 %

Ultrasonic

100 %

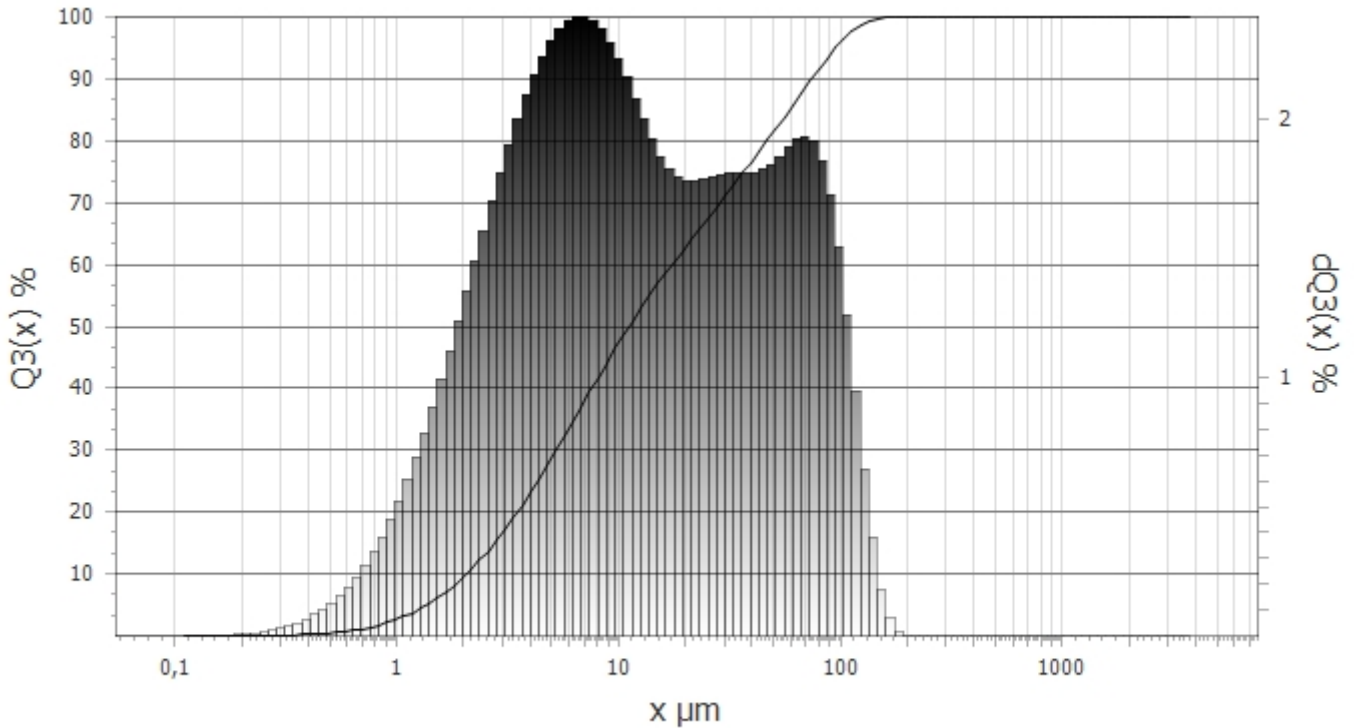



— 31400 Q3(x) 
 — 31401 Q3(x) 
 — 31403 Q3(x) 
 — 31404 Q3(x) 
 — 31409 Q3(x) 
 — 31410 Q3(x)

| % <  | mean µm | CV[%] | M31400 | M31401 | M31403 | M31404 | M31409 | M31410 |
|------|---------|-------|--------|--------|--------|--------|--------|--------|
| 10,0 | 0,9     | 93,5  | 2,07   | 2,09   | 0,47   | 0,47   | 0,16   | 0,15   |
| 50,0 | 4,2     | 115,4 | 11,12  | 10,91  | 1,18   | 1,18   | 0,37   | 0,37   |
| 90,0 | 25,4    | 131,6 | 74,38  | 71,06  | 2,59   | 2,57   | 0,97   | 1      |

| < µm   | mean % | CV[%] | M31400 | M31401 | M31403 | M31404 | M31409 | M31410 |
|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 0,50   | 25,6   | 109,2 | 0,47   | 0,57   | 11,89  | 11,43  | 64,76  | 64,58  |
| 1,00   | 44,6   | 80,6  | 2,66   | 2,7    | 40,73  | 40,54  | 90,89  | 90,07  |
| 5,00   | 76,2   | 43,9  | 28,76  | 28,96  | 99,9   | 99,93  | 99,96  | 99,98  |
| 10,00  | 82,5   | 29,9  | 47,34  | 47,8   | 99,98  | 100    | 99,96  | 99,98  |
| 25,00  | 89,2   | 17,1  | 67,28  | 67,89  | 99,98  | 100    | 99,96  | 99,98  |
| 50,00  | 93,9   | 9,1   | 81,43  | 82,25  | 99,98  | 100    | 99,96  | 99,98  |
| 100,00 | 98,8   | 1,8   | 95,92  | 96,69  | 99,98  | 100    | 99,96  | 99,98  |
| 200,00 | 100,0  | 0,0   | 100    | 100    | 99,98  | 100    | 99,96  | 99,98  |
| 250,00 | 100,0  | 0,0   | 100    | 100    | 99,98  | 100    | 99,96  | 99,98  |
| 300,00 | 100,0  | 0,0   | 100    | 100    | 99,98  | 100    | 99,96  | 99,99  |
| 400,00 | 100,0  | 0,0   | 100    | 100    | 99,98  | 100    | 99,96  | 99,99  |

|                    |        |                |                 |                         |                    |
|--------------------|--------|----------------|-----------------|-------------------------|--------------------|
| <b>Meas. No.</b>   | 31400  | <b>Name</b>    | (2)             | <b>Date</b>             | 14-Mrz-22 10:58:05 |
| <b>Material</b>    | Sinter | <b>Lot</b>     | original Sample | <b>RMS-Error</b>        | 0,0272             |
| <b>Information</b> | NL -D  | <b>Comment</b> | M220060         | <b>Beam Obscuration</b> | 18%                |

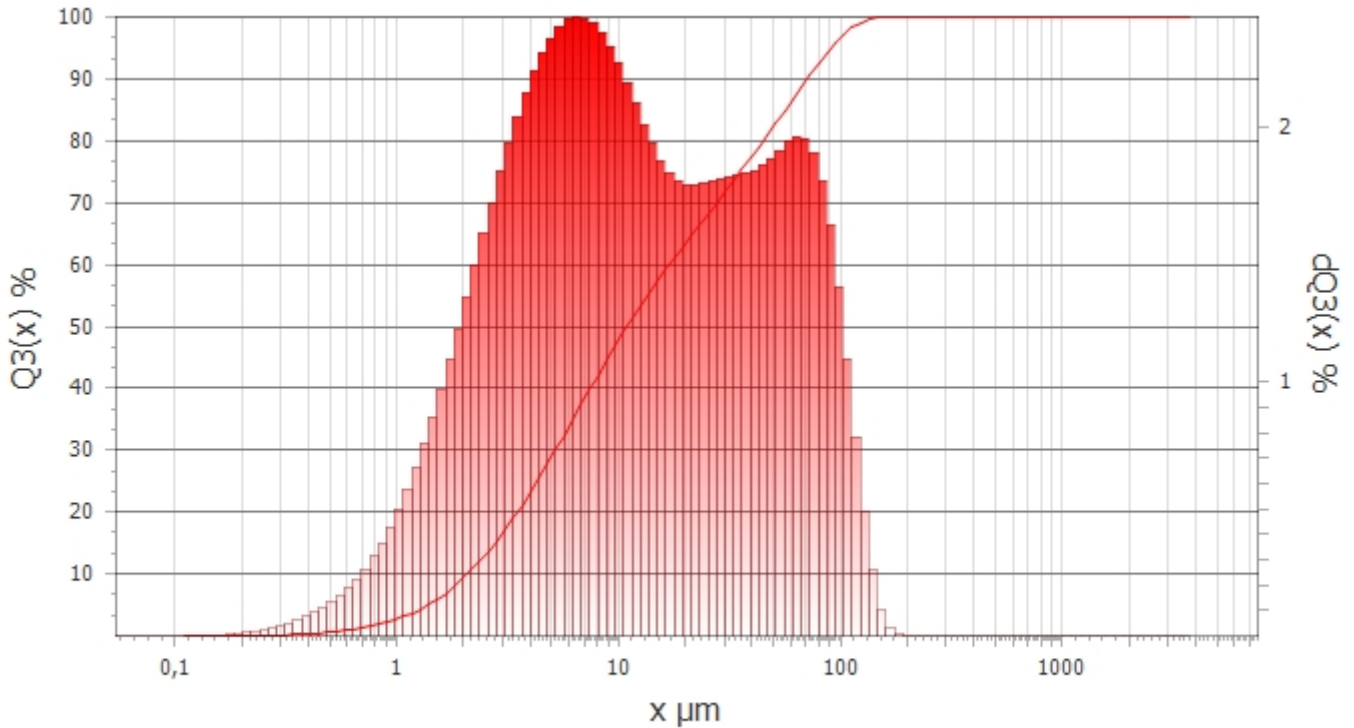



 31400 dQ3(x) — 31400 Q3(x)

| %           | < µm         |
|-------------|--------------|
| 5,0         | 1,37         |
| <b>10,0</b> | <b>2,07</b>  |
| 15,0        | 2,76         |
| 20,0        | 3,50         |
| 30,0        | 5,24         |
| 40,0        | 7,58         |
| <b>50,0</b> | <b>11,12</b> |
| 60,0        | 17,42        |
| 70,0        | 28,61        |
| 80,0        | 46,66        |
| 85,0        | 59,19        |
| <b>90,0</b> | <b>74,38</b> |
| 95,0        | 94,70        |
| 97,0        | 107,13       |
| 99,0        | 128,47       |

| < µm   | %     |
|--------|-------|
| 0,10   | 0,0   |
| 0,20   | 0,0   |
| 0,50   | 0,5   |
| 1,00   | 2,7   |
| 2,00   | 9,5   |
| 5,00   | 28,8  |
| 10,00  | 47,3  |
| 20,00  | 62,8  |
| 30,00  | 71,0  |
| 40,00  | 76,8  |
| 50,00  | 81,4  |
| 60,00  | 85,3  |
| 70,00  | 88,7  |
| 100,00 | 95,9  |
| 125,00 | 98,8  |
| 150,00 | 99,8  |
| 175,00 | 100,0 |
| 200,00 | 100,0 |

|                    |        |                |                 |                         |                    |
|--------------------|--------|----------------|-----------------|-------------------------|--------------------|
| <b>Meas. No.</b>   | 31401  | <b>Name</b>    | (3)             | <b>Date</b>             | 14-Mrz-22 10:58:14 |
| <b>Material</b>    | Sinter | <b>Lot</b>     | original Sample | <b>RMS-Error</b>        | 0,0276             |
| <b>Information</b> | NL -D  | <b>Comment</b> | M220060         | <b>Beam Obscuration</b> | 18%                |

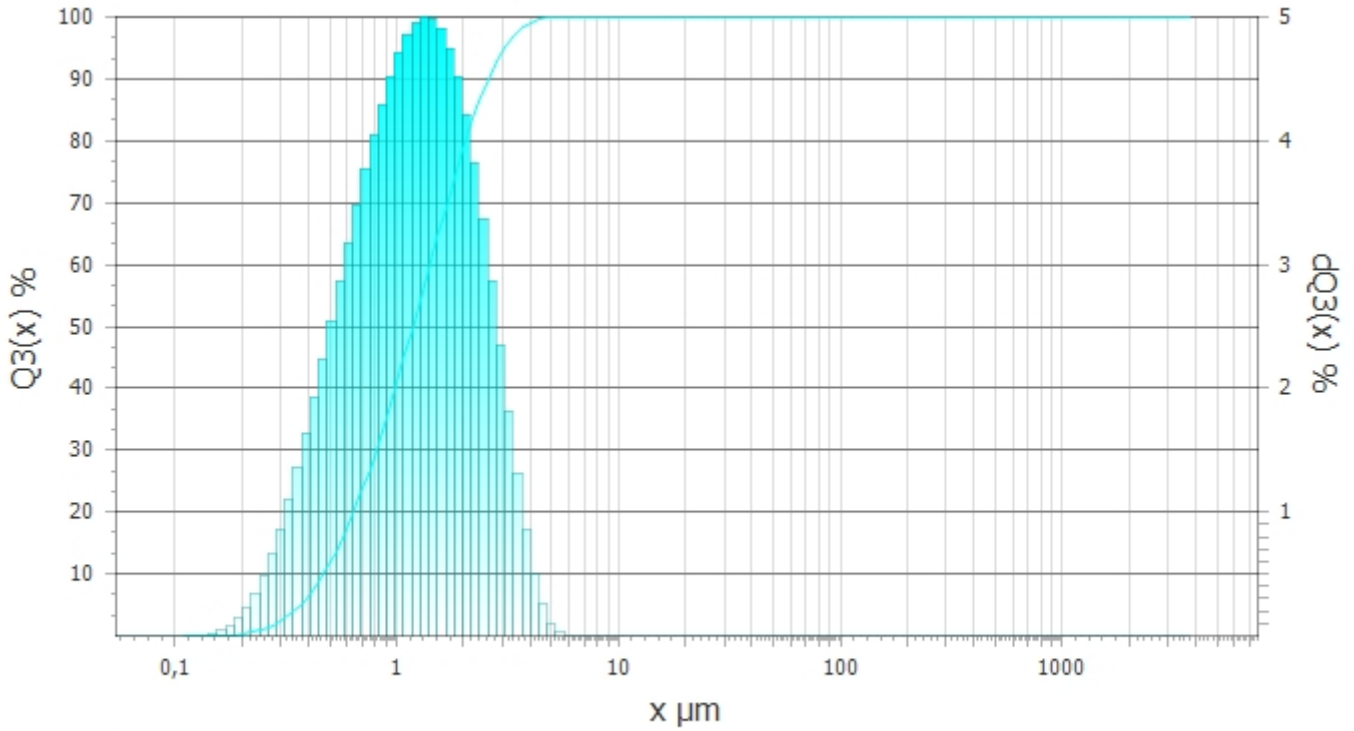


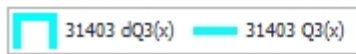
 31401 dQ3(x) — 31401 Q3(x)

| %           | < μm         |
|-------------|--------------|
| 5,0         | 1,38         |
| <b>10,0</b> | <b>2,09</b>  |
| 15,0        | 2,78         |
| 20,0        | 3,50         |
| 30,0        | 5,19         |
| 40,0        | 7,47         |
| <b>50,0</b> | <b>10,91</b> |
| 60,0        | 16,96        |
| 70,0        | 27,71        |
| 80,0        | 44,98        |
| 85,0        | 56,73        |
| <b>90,0</b> | <b>71,06</b> |
| 95,0        | 90,50        |
| 97,0        | 101,97       |
| 99,0        | 121,96       |

| < μm   | %     |
|--------|-------|
| 0,10   | 0,0   |
| 0,20   | 0,0   |
| 0,50   | 0,6   |
| 1,00   | 2,7   |
| 2,00   | 9,3   |
| 5,00   | 29,0  |
| 10,00  | 47,8  |
| 20,00  | 63,4  |
| 30,00  | 71,6  |
| 40,00  | 77,6  |
| 50,00  | 82,3  |
| 60,00  | 86,2  |
| 70,00  | 89,7  |
| 100,00 | 96,7  |
| 125,00 | 99,2  |
| 150,00 | 99,9  |
| 175,00 | 100,0 |
| 200,00 | 100,0 |

|                    |        |                |                |                         |                    |
|--------------------|--------|----------------|----------------|-------------------------|--------------------|
| <b>Meas. No.</b>   | 31403  | <b>Name</b>    | (2)            | <b>Date</b>             | 14-Mrz-22 11:06:13 |
| <b>Material</b>    | Sinter | <b>Lot</b>     | 5min 1mmWC PEG | <b>RMS-Error</b>        | 0,2922             |
| <b>Information</b> | NL -D  | <b>Comment</b> | M220060        | <b>Beam Obscuration</b> | 13%                |

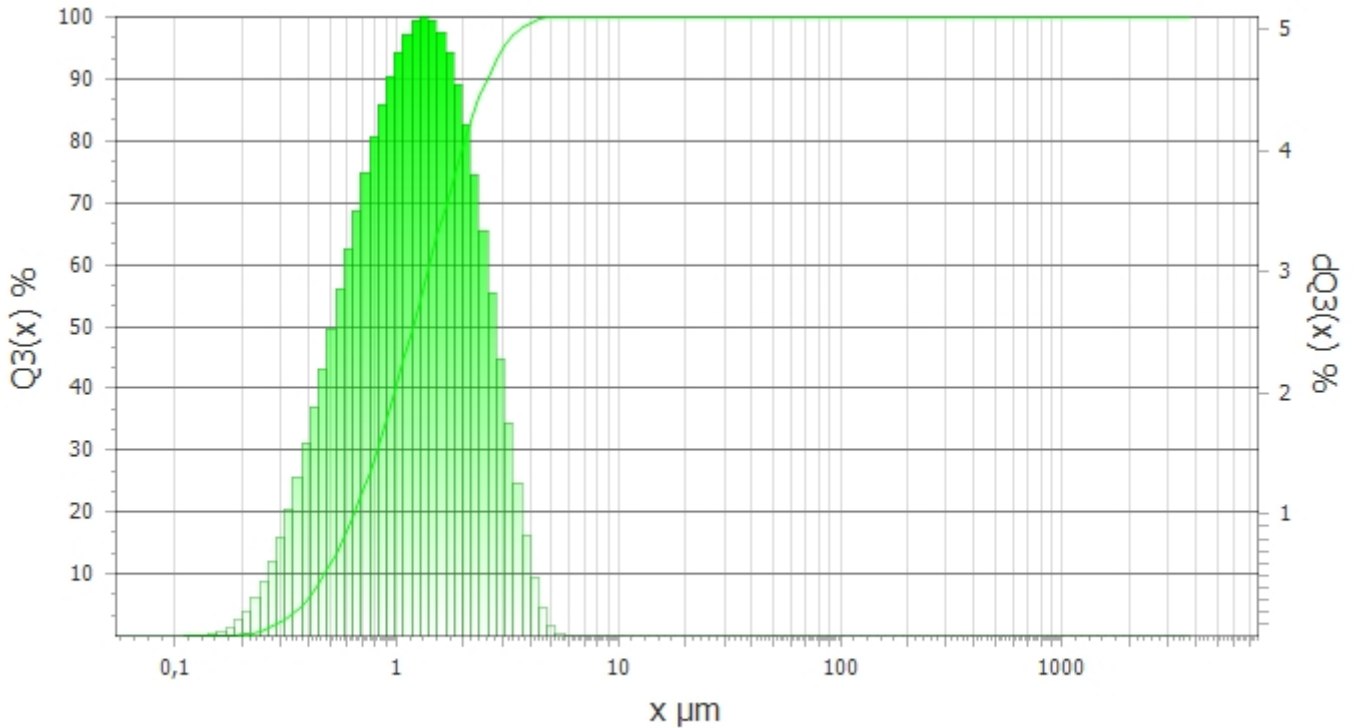


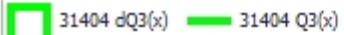


| %           | < μm        |
|-------------|-------------|
| 5,0         | 0,37        |
| <b>10,0</b> | <b>0,47</b> |
| 15,0        | 0,55        |
| 20,0        | 0,64        |
| 30,0        | 0,81        |
| 40,0        | 0,99        |
| <b>50,0</b> | <b>1,18</b> |
| 60,0        | 1,41        |
| 70,0        | 1,69        |
| 80,0        | 2,05        |
| 85,0        | 2,29        |
| <b>90,0</b> | <b>2,59</b> |
| 95,0        | 3,07        |
| 97,0        | 3,38        |
| 99,0        | 3,97        |

| < μm | %     |
|------|-------|
| 0,10 | 0,0   |
| 0,15 | 0,0   |
| 0,22 | 0,5   |
| 0,33 | 3,5   |
| 0,49 | 11,4  |
| 0,73 | 25,7  |
| 1,09 | 45,5  |
| 1,63 | 67,9  |
| 2,42 | 87,4  |
| 3,61 | 97,9  |
| 5,37 | 100,0 |
| 8,00 | 100,0 |

|                    |        |                |                |                         |                    |
|--------------------|--------|----------------|----------------|-------------------------|--------------------|
| <b>Meas. No.</b>   | 31404  | <b>Name</b>    | (3)            | <b>Date</b>             | 14-Mrz-22 11:06:23 |
| <b>Material</b>    | Sinter | <b>Lot</b>     | 5min 1mmWC PEG | <b>RMS-Error</b>        | 0,2862             |
| <b>Information</b> | NL -D  | <b>Comment</b> | M220060        | <b>Beam Obscuration</b> | 13%                |

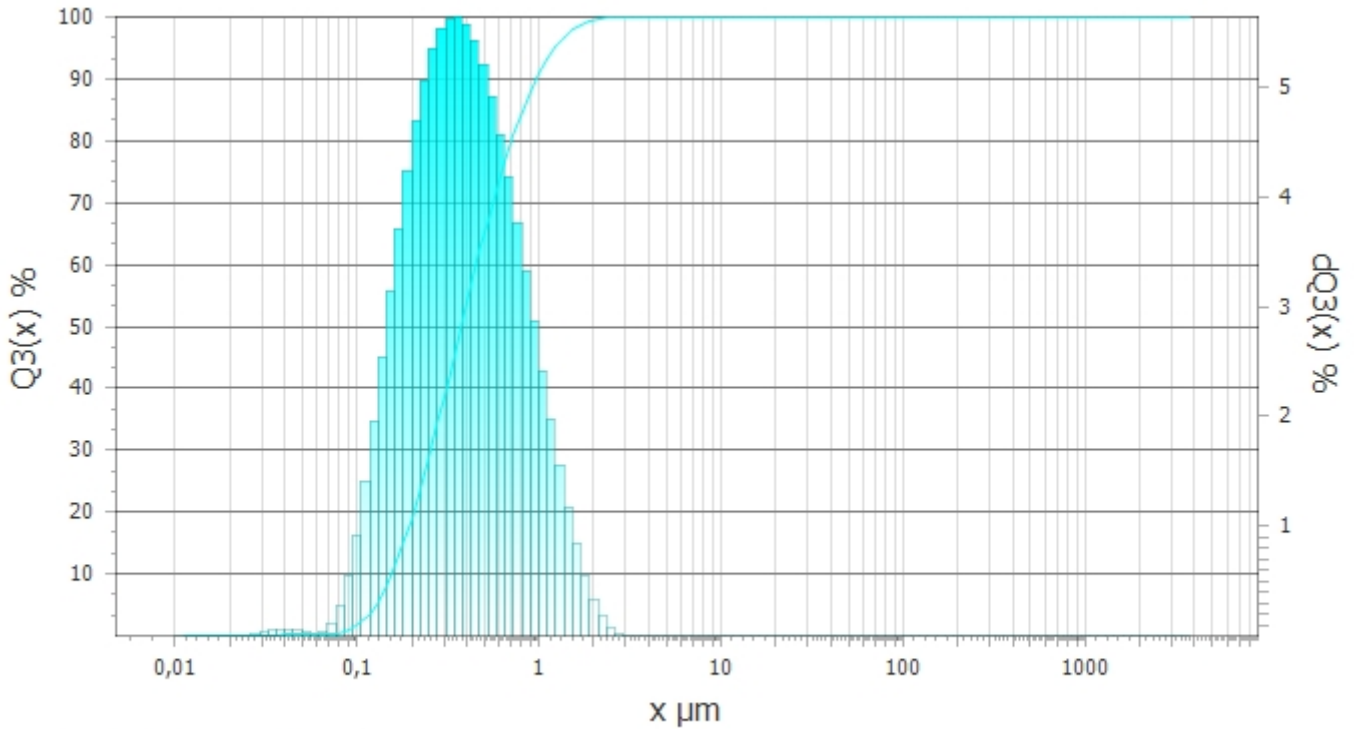


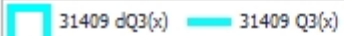


| %           | < μm        |
|-------------|-------------|
| 5,0         | 0,37        |
| <b>10,0</b> | <b>0,47</b> |
| 15,0        | 0,56        |
| 20,0        | 0,65        |
| 30,0        | 0,81        |
| 40,0        | 0,99        |
| <b>50,0</b> | <b>1,18</b> |
| 60,0        | 1,41        |
| 70,0        | 1,68        |
| 80,0        | 2,03        |
| 85,0        | 2,27        |
| <b>90,0</b> | <b>2,57</b> |
| 95,0        | 3,04        |
| 97,0        | 3,35        |
| 99,0        | 3,94        |

| < μm | %     |
|------|-------|
| 0,10 | 0,0   |
| 0,15 | 0,0   |
| 0,22 | 0,5   |
| 0,33 | 3,3   |
| 0,49 | 11,0  |
| 0,73 | 25,2  |
| 1,09 | 45,4  |
| 1,63 | 68,2  |
| 2,42 | 87,8  |
| 3,61 | 98,1  |
| 5,37 | 100,0 |
| 8,00 | 100,0 |

|                    |        |                |                          |                         |                    |
|--------------------|--------|----------------|--------------------------|-------------------------|--------------------|
| <b>Meas. No.</b>   | 31409  | <b>Name</b>    | (1)                      | <b>Date</b>             | 14-Mrz-22 13:36:32 |
| <b>Material</b>    | Sinter | <b>Lot</b>     | 15min P7pl 1mm WC<br>PEG | <b>RMS-Error</b>        | 0,1595             |
| <b>Information</b> | NL -D  | <b>Comment</b> | M220060                  | <b>Beam Obscuration</b> | 12%                |

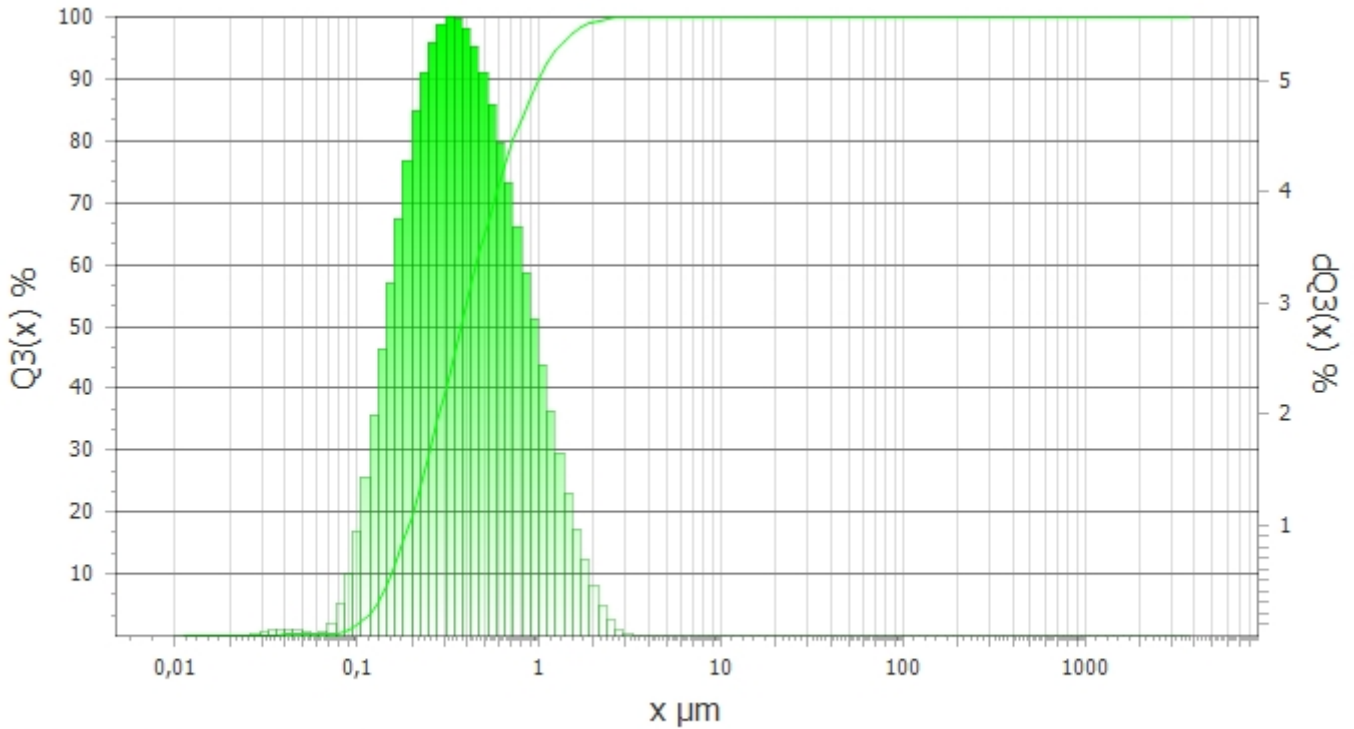


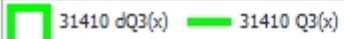


| %           | < μm        |
|-------------|-------------|
| 5,0         | 0,13        |
| <b>10,0</b> | <b>0,16</b> |
| 15,0        | 0,18        |
| 20,0        | 0,20        |
| 30,0        | 0,25        |
| 40,0        | 0,31        |
| <b>50,0</b> | <b>0,37</b> |
| 60,0        | 0,45        |
| 70,0        | 0,56        |
| 80,0        | 0,71        |
| 85,0        | 0,82        |
| <b>90,0</b> | <b>0,97</b> |
| 95,0        | 1,22        |
| 97,0        | 1,41        |
| 99,0        | 1,78        |

| < μm | %    |
|------|------|
| 0,01 | 0,0  |
| 0,02 | 0,0  |
| 0,03 | 0,0  |
| 0,05 | 0,3  |
| 0,08 | 0,6  |
| 0,10 | 1,7  |
| 0,15 | 9,0  |
| 0,20 | 19,1 |
| 0,30 | 38,4 |
| 0,40 | 53,5 |
| 0,70 | 79,5 |
| 1,00 | 90,9 |
| 1,20 | 94,7 |
| 1,50 | 97,7 |
| 2,00 | 99,5 |

|                    |        |                |                          |                         |                    |
|--------------------|--------|----------------|--------------------------|-------------------------|--------------------|
| <b>Meas. No.</b>   | 31410  | <b>Name</b>    | (2)                      | <b>Date</b>             | 14-Mrz-22 13:37:03 |
| <b>Material</b>    | Sinter | <b>Lot</b>     | 15min P7pl 1mm WC<br>PEG | <b>RMS-Error</b>        | 0,1630             |
| <b>Information</b> | NL -D  | <b>Comment</b> | M220060                  | <b>Beam Obscuration</b> | 12%                |





| %           | < μm        |
|-------------|-------------|
| 5,0         | 0,13        |
| <b>10,0</b> | <b>0,15</b> |
| 15,0        | 0,18        |
| 20,0        | 0,20        |
| 30,0        | 0,25        |
| 40,0        | 0,31        |
| <b>50,0</b> | <b>0,37</b> |
| 60,0        | 0,45        |
| 70,0        | 0,56        |
| 80,0        | 0,72        |
| 85,0        | 0,84        |
| <b>90,0</b> | <b>1,00</b> |
| 95,0        | 1,28        |
| 97,0        | 1,48        |
| 99,0        | 1,89        |

| < μm | %    |
|------|------|
| 0,01 | 0,0  |
| 0,02 | 0,0  |
| 0,03 | 0,0  |
| 0,05 | 0,3  |
| 0,08 | 0,6  |
| 0,10 | 1,8  |
| 0,15 | 9,1  |
| 0,20 | 19,4 |
| 0,30 | 38,7 |
| 0,40 | 53,6 |
| 0,70 | 78,9 |
| 1,00 | 90,1 |
| 1,20 | 93,9 |
| 1,50 | 97,1 |
| 2,00 | 99,2 |