

# Price List 2023



Index 2

The price list only contains an excerpt of the available materials and size classes.

Other materials, sizes, particle shapes or mixtures on request.

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**NEW: All metallic particles are also available in a high-precision 3-dimensional version**

Description	Item No.:	Units:	Price/ Unit:
<b>1. Test standard</b>			
1.1 "PartikelStandard" WITHOUT certificate			
"PartikelStandard" hydrophile Aluminiumparticle	170754610	1	23,88 €
"PartikelStandard" hydrophile Steelparticle	143014610	1	23,88 €
"PartikelStandard" hydrophile Aluminiumparticle + UV marker red	170754710	1	30,72 €
"PartikelStandard" hydrophile Steelparticle + UV marker red	143014710	1	30,72 €
"PartikelStandard" hydrophile Aluminiumparticle + UV marker yellow	170754810	1	30,72 €
"PartikelStandard" hydrophile Steelparticle + UV marker yellow	143014810	1	30,72 €
"PartikelStandard" hydrophile Aluminiumparticle + UV marker blue	170754910	1	30,72 €
"PartikelStandard" hydrophile Steelparticle + UV marker blue	143014910	1	30,72 €
"PartikelStandard" lipophile Aluminiumparticle	170755610	1	23,88 €
"PartikelStandard" lipophile Steelparticle	143015610	1	23,88 €
"PartikelStandard" lipophile Aluminiumparticle + UV marker red	170755710	1	30,72 €
"PartikelStandard" lipophile Steelparticle + UV marker red	143015710	1	30,72 €
"PartikelStandard" lipophile Aluminiumparticle + UV marker yellow	170755810	1	30,72 €
"PartikelStandard" lipophile Steelparticle + UV marker yellow	143015810	1	30,72 €
"PartikelStandard" lipophile Aluminiumparticle + UV marker blue	170755910	1	30,72 €
"PartikelStandard" lipophile Steelparticle + UV marker blue	143015910	1	30,72 €
1.1 "PartikelMaster" WITH certificate			
"PartikelMaster" hydrophile Aluminiumparticle	370754610	1	59,88 €
"PartikelMaster" hydrophile Steelparticle	343014610	1	59,88 €
"PartikelMaster" hydrophile Aluminiumparticle + UV marker red	370754710	1	67,38 €
"PartikelMaster" hydrophile Steelparticle + UV marker red	343014710	1	67,38 €
"PartikelMaster" hydrophile Aluminiumparticle + UV marker yellow	370754810	1	67,38 €
"PartikelMaster" hydrophile Steelparticle + UV marker yellow	343014810	1	67,38 €
"PartikelMaster" hydrophile Aluminiumparticle + UV marker blue	370754910	1	67,38 €
"PartikelMaster" hydrophile Steelparticle + UV marker blue	343014910	1	67,38 €
"PartikelMaster" lipophile Aluminiumparticle	370755610	1	59,88 €
"PartikelMaster" lipophile Steelparticle	343015610	1	59,88 €
"PartikelMaster" lipophile Aluminiumparticle + UV marker red	370755710	1	67,38 €
"PartikelMaster" lipophile Steelparticle + UV marker red	343015710	1	67,38 €
"PartikelMaster" lipophile Aluminiumparticle + UV marker yellow	370755810	1	67,38 €
"PartikelMaster" lipophile Steelparticle + UV marker yellow	343015810	1	67,38 €
"PartikelMaster" lipophile Aluminiumparticle + UV marker blue	370755910	1	67,38 €
"PartikelMaster" lipophile Steelparticle + UV marker blue	343015910	1	67,38 €

Description	Item No.:	Number of Particles:	Unit:	Price/ Unit:
<b>2. Testparticles milled</b>				
2.1 Testparticles Aluminium without UV marker				
Testparticles Aluminium 0 - 25 µm	270753600	6000	10 mg	134,66 €
Testparticles Aluminium 25 - 50 µm	270753601	4500	10 mg	98,88 €
Testparticles Aluminium 50 - 100 µm	270753602	3200	10 mg	83,04 €
Testparticles Aluminium 100 - 150 µm	270753605	2500	10 mg	71,76 €
Testparticles Aluminium 150 - 200 µm	270753610	2000	10 mg	61,21 €
Testparticles Aluminium 200 - 400 µm	270753620	1000	10 mg	51,74 €
Testparticles Aluminium 400 - 600 µm	270753630	750	10 mg	44,35 €
Testparticles Aluminium 600 - 1000 µm	270753640	300	10 mg	35,38 €
Testparticles Aluminium 1000 - 1500 µm	270753650	170	10 mg	22,18 €
Testparticles Aluminium 1500 - 2000 µm	270753660	100	10 mg	18,12 €
Testparticles Aluminium 2000 - 2500 µm	270753670	70	10 mg	15,24 €
Testparticles Aluminium 2500 - 3000 µm	270753680	50	10 mg	11,28 €
Testparticles Aluminium 3000 - 4000 µm	270753685	25	10 mg	8,64 €
Testparticles Aluminium 4000 - 5000 µm	270753690	12	10 mg	6,96 €
2.2 Testparticles Aluminium with UV marker red				
Testparticles Aluminium 0 - 25 µm UV red	270753700	6000	10 mg	141,26 €
Testparticles Aluminium 25 - 50 µm UV red	270753701	4500	10 mg	105,48 €
Testparticles Aluminium 50 - 100 µm UV red	270753702	3200	10 mg	89,64 €
Testparticles Aluminium 100 - 150 µm UV red	270753705	2500	10 mg	78,36 €
Testparticles Aluminium 150 - 200 µm UV red	270753710	2000	10 mg	67,81 €
Testparticles Aluminium 200 - 400 µm UV red	270753720	1000	10 mg	58,34 €
Testparticles Aluminium 400 - 600 µm UV red	270753730	750	10 mg	50,95 €
Testparticles Aluminium 600 - 1000 µm UV red	270753740	300	10 mg	41,98 €
Testparticles Aluminium 1000 - 1500 µm UV red	270753750	170	10 mg	28,78 €
Testparticles Aluminium 1500 - 2000 µm UV red	270753760	100	10 mg	24,72 €
Testparticles Aluminium 2000 - 2500 µm UV red	270753770	70	10 mg	21,84 €
Testparticles Aluminium 2500 - 3000 µm UV red	270753780	50	10 mg	17,88 €
Testparticles Aluminium 3000 - 4000 µm UV red	270753785	25	10 mg	15,24 €
Testparticles Aluminium 4000 - 5000 µm UV red	270753790	12	10 mg	13,56 €
2.3 Testparticles Aluminium with UV marker yellow				
Testparticles Aluminium 0 - 25 µm UV yellow	270753800	6000	10 mg	141,26 €
Testparticles Aluminium 25 - 50 µm UV yellow	270753801	4500	10 mg	105,48 €
Testparticles Aluminium 50 - 100 µm UV yellow	270753802	3200	10 mg	89,64 €
Testparticles Aluminium 100 - 150 µm UV yellow	270753805	2500	10 mg	78,36 €
Testparticles Aluminium 150 - 200 µm UV yellow	270753810	2000	10 mg	67,81 €
Testparticles Aluminium 200 - 400 µm UV yellow	270753820	1000	10 mg	58,34 €
Testparticles Aluminium 400 - 600 µm UV yellow	270753830	750	10 mg	50,95 €
Testparticles Aluminium 600 - 1000 µm UV yellow	270753840	300	10 mg	41,98 €
Testparticles Aluminium 1000 - 1500 µm UV yellow	270753850	170	10 mg	28,78 €
Testparticles Aluminium 1500 - 2000 µm UV yellow	270753860	100	10 mg	24,72 €
Testparticles Aluminium 2000 - 2500 µm UV yellow	270753870	70	10 mg	21,84 €
Testparticles Aluminium 2500 - 3000 µm UV yellow	270753880	50	10 mg	17,88 €
Testparticles Aluminium 3000 - 4000 µm UV yellow	270753885	25	10 mg	15,24 €
Testparticles Aluminium 4000 - 5000 µm UV yellow	270753890	12	10 mg	13,56 €

Description	Item No.:	Number of Particles:	Unit:	Price/ Unit:
<b>2.4 Testparticles Aluminium with UV marker blue</b>				
Testparticles Aluminium 0 - 25 µm UV blue	270753900	6000	10 mg	141,26 €
Testparticles Aluminium 25 - 50 µm UV blue	270753901	4500	10 mg	105,48 €
Testparticles Aluminium 50 - 100 µm UV blue	270753902	3200	10 mg	89,64 €
Testparticles Aluminium 100 - 150 µm UV blue	270753905	2500	10 mg	78,36 €
Testparticles Aluminium 150 - 200 µm UV blue	270753910	2000	10 mg	67,81 €
Testparticles Aluminium 200 - 400 µm UV blue	270753920	1000	10 mg	58,34 €
Testparticles Aluminium 400 - 600 µm UV blue	270753930	750	10 mg	50,95 €
Testparticles Aluminium 600 - 1000 µm UV blue	270753940	300	10 mg	41,98 €
Testparticles Aluminium 1000 - 1500 µm UV blue	270753950	170	10 mg	28,78 €
Testparticles Aluminium 1500 - 2000 µm UV blue	270753960	100	10 mg	24,72 €
Testparticles Aluminium 2000 - 2500 µm UV blue	270753970	70	10 mg	21,84 €
Testparticles Aluminium 2500 - 3000 µm UV blue	270753980	50	10 mg	17,88 €
Testparticles Aluminium 3000 - 4000 µm UV blue	270753985	25	10 mg	15,24 €
Testparticles Aluminium 4000 - 5000 µm UV blue	270753990	12	10 mg	13,56 €
<b>2.5 Testparticles Steel without UV marker</b>				
Testparticles Steel 0 - 50 µm	243013600	1200	10 mg	89,53 €
Testparticles Steel 50 - 100 µm	243013602	900	10 mg	77,17 €
Testparticles Steel 100 - 150 µm	243013605	700	10 mg	64,74 €
Testparticles Steel 150 - 200 µm	243013610	600	10 mg	48,80 €
Testparticles Steel 200 - 400 µm	243013620	300	10 mg	38,44 €
Testparticles Steel 400 - 600 µm	243013630	150	10 mg	28,83 €
Testparticles Steel 600 - 1000 µm	243013640	80	10 mg	14,41 €
Testparticles Steel 1000 - 1500 µm	243013650	50	10 mg	13,73 €
Testparticles Steel 1500 - 2000 µm	243013660	40	10 mg	11,25 €
Testparticles Steel 2000 - 2500 µm	243013670	25	10 mg	9,25 €
Testparticles Steel 2500 - 3000 µm	243013680	15	10 mg	7,64 €
<b>2.6 Testparticles Steel with UV marker red</b>				
Testparticles Steel 0 - 50 µm UV red	243013700	1200	10 mg	98,11 €
Testparticles Steel 50 - 100 µm UV red	243013702	900	10 mg	85,75 €
Testparticles Steel 100 - 150 µm UV red	243013705	700	10 mg	73,32 €
Testparticles Steel 150 - 200 µm UV red	243013710	600	10 mg	57,38 €
Testparticles Steel 200 - 400 µm UV red	243013720	300	10 mg	47,02 €
Testparticles Steel 400 - 600 µm UV red	243013730	150	10 mg	37,41 €
Testparticles Steel 600 - 1000 µm UV red	243013740	80	10 mg	22,99 €
Testparticles Steel 1000 - 1500 µm UV red	243013750	50	10 mg	22,31 €
Testparticles Steel 1500 - 2000 µm UV red	243013760	40	10 mg	19,83 €
Testparticles Steel 2000 - 2500 µm UV red	243013770	25	10 mg	17,83 €
Testparticles Steel 2500 - 3000 µm UV red	243013780	15	10 mg	16,22 €

Description	Item No.:	Number of Particles:	Unit:	Price/ Unit:
<b>2.7 Testparticles Steel with UV marker Farbe yellow</b>				
Testparticles Steel 0 - 50 µm UV yellow	243013800	1200	10 mg	98,11 €
Testparticles Steel 50 - 100 µm UV yellow	243013802	900	10 mg	85,75 €
Testparticles Steel 100 - 150 µm UV yellow	243013805	700	10 mg	73,32 €
Testparticles Steel 150 - 200 µm UV yellow	243013810	600	10 mg	57,38 €
Testparticles Steel 200 - 400 µm UV yellow	243013820	300	10 mg	47,02 €
Testparticles Steel 400 - 600 µm UV yellow	243013830	150	10 mg	37,41 €
Testparticles Steel 600 - 1000 µm UV yellow	243013840	80	10 mg	22,99 €
Testparticles Steel 1000 - 1500 µm UV yellow	243013850	50	10 mg	22,31 €
Testparticles Steel 1500 - 2000 µm UV yellow	243013860	40	10 mg	19,83 €
Testparticles Steel 2000 - 2500 µm UV yellow	243013870	25	10 mg	17,83 €
Testparticles Steel 2500 - 3000 µm UV yellow	243013880	15	10 mg	16,22 €
<b>2.8 Testparticles Steel with UV marker Farbe blue</b>				
Testparticles Steel 0 - 50 µm UV blue	243013900	1200	10 mg	98,11 €
Testparticles Steel 50 - 100 µm UV blue	243013902	900	10 mg	85,75 €
Testparticles Steel 100 - 150 µm UV blue	243013905	700	10 mg	73,32 €
Testparticles Steel 150 - 200 µm UV blue	243013910	600	10 mg	57,38 €
Testparticles Steel 200 - 400 µm UV blue	243013920	300	10 mg	47,02 €
Testparticles Steel 400 - 600 µm UV blue	243013930	150	10 mg	37,41 €
Testparticles Steel 600 - 1000 µm UV blue	243013940	80	10 mg	22,99 €
Testparticles Steel 1000 - 1500 µm UV blue	243013950	50	10 mg	22,31 €
Testparticles Steel 1500 - 2000 µm UV blue	243013960	40	10 mg	19,83 €
Testparticles Steel 2000 - 2500 µm UV blue	243013970	25	10 mg	17,83 €
Testparticles Steel 2500 - 3000 µm UV blue	243013980	15	10 mg	16,22 €
<b>2.9 Testparticles Steel without UV marker</b>				
Testparticles Steel C45 0 - 50 µm	245003600	1200	10 mg	111,08 €
Testparticles Steel C45 50 - 100 µm	245003602	900	10 mg	83,77 €
Testparticles Steel C45 100 - 150 µm	245003605	700	10 mg	70,42 €
Testparticles Steel C45 150 - 200 µm	245003610	600	10 mg	60,00 €
Testparticles Steel C45 200 - 400 µm	245003620	300	10 mg	50,44 €
Testparticles Steel C45 400 - 600 µm	245003630	150	10 mg	40,83 €
Testparticles Steel C45 600 - 1000 µm	245003640	80	10 mg	26,41 €
Testparticles Steel C45 1000 - 1500 µm	245003650	50	10 mg	25,73 €
Testparticles Steel C45 1500 - 2000 µm	245003660	40	10 mg	23,25 €
Testparticles Steel C45 2000 - 2500 µm	245003670	25	10 mg	21,25 €
Testparticles Steel C45 2500 - 3000 µm	245003680	15	10 mg	19,64 €

Description	Item No.:	Number of Particles:	Unit:	Price/ Unit:
<b>2.10 Testparticles Steel with UV marker red</b>				
Testparticles Steel C45 0 - 50 µm UV red	245003700	1200	10 mg	119,66 €
Testparticles Steel C45 50 - 100 µm UV red	245003702	900	10 mg	92,35 €
Testparticles Steel C45 100 - 150 µm UV red	245003705	700	10 mg	79,00 €
Testparticles Steel C45 150 - 200 µm UV red	245003710	600	10 mg	68,58 €
Testparticles Steel C45 200 - 400 µm UV red	245003720	300	10 mg	59,02 €
Testparticles Steel C45 400 - 600 µm UV red	245003730	150	10 mg	49,41 €
Testparticles Steel C45 600 - 1000 µm UV red	245003740	80	10 mg	34,99 €
Testparticles Steel C45 1000 - 1500 µm UV red	245003750	50	10 mg	34,31 €
Testparticles Steel C45 1500 - 2000 µm UV red	245003760	40	10 mg	31,83 €
Testparticles Steel C45 2000 - 2500 µm UV red	245003770	25	10 mg	29,83 €
Testparticles Steel C45 2500 - 3000 µm UV red	245003780	15	10 mg	28,22 €
<b>2.11 Testparticles Steel with UV marker yellow</b>				
Testparticles Steel C45 0 - 50 µm UV yellow	245003800	1200	10 mg	119,66 €
Testparticles Steel C45 50 - 100 µm UV yellow	245003802	900	10 mg	92,35 €
Testparticles Steel C45 100 - 150 µm UV yellow	245003805	700	10 mg	79,00 €
Testparticles Steel C45 150 - 200 µm UV yellow	245003810	600	10 mg	68,58 €
Testparticles Steel C45 200 - 400 µm UV yellow	245003820	300	10 mg	59,02 €
Testparticles Steel C45 400 - 600 µm UV yellow	245003830	150	10 mg	49,41 €
Testparticles Steel C45 600 - 1000 µm UV yellow	245003840	80	10 mg	34,99 €
Testparticles Steel C45 1000 - 1500 µm UV yellow	245003850	50	10 mg	34,31 €
Testparticles Steel C45 1500 - 2000 µm UV yellow	245003860	40	10 mg	31,83 €
Testparticles Steel C45 2000 - 2500 µm UV yellow	245003870	25	10 mg	29,83 €
Testparticles Steel C45 2500 - 3000 µm UV yellow	245003880	15	10 mg	28,22 €
<b>2.12 Testparticles Steel with UV marker blue</b>				
Testparticles Steel C45 0 - 50 µm UV blue	245003900	1200	10 mg	119,66 €
Testparticles Steel C45 50 - 100 µm UV blue	245003902	900	10 mg	92,35 €
Testparticles Steel C45 100 - 150 µm UV blue	245003905	700	10 mg	79,00 €
Testparticles Steel C45 150 - 200 µm UV blue	245003910	600	10 mg	68,58 €
Testparticles Steel C45 200 - 400 µm UV blue	245003920	300	10 mg	59,02 €
Testparticles Steel C45 400 - 600 µm UV blue	245003930	150	10 mg	49,41 €
Testparticles Steel C45 600 - 1000 µm UV blue	245003940	80	10 mg	34,99 €
Testparticles Steel C45 1000 - 1500 µm UV blue	245003950	50	10 mg	34,31 €
Testparticles Steel C45 1500 - 2000 µm UV blue	245003960	40	10 mg	31,83 €
Testparticles Steel C45 2000 - 2500 µm UV blue	245003970	25	10 mg	29,83 €
Testparticles Steel C45 2500 - 3000 µm UV blue	245003980	15	10 mg	28,22 €

Description	Item No.:	Number of Particles:	Unit:	Price/ Unit:
<b>2.13 Testparticles Copper without UV marker</b>				
Testparticles Copper 0 - 50 µm	211113600	1200	10 mg	98,88 €
Testparticles Copper 50 - 100 µm	211113602	900	10 mg	83,04 €
Testparticles Copper 100 - 150 µm	211113605	700	10 mg	71,76 €
Testparticles Copper 150 - 200 µm	211113610	600	10 mg	61,21 €
Testparticles Copper 200 - 400 µm	211113620	300	10 mg	51,74 €
Testparticles Copper 400 - 600 µm	211113630	150	10 mg	44,35 €
Testparticles Copper 600 - 1000 µm	211113640	80	10 mg	35,38 €
Testparticles Copper 1000 - 1500 µm	211113650	50	10 mg	22,18 €
Testparticles Copper 1500 - 2000 µm	211113660	40	10 mg	18,12 €
Testparticles Copper 2000 - 2500 µm	211113670	25	10 mg	15,24 €
Testparticles Copper 2500 - 3000 µm	211113680	15	10 mg	11,28 €

#### 2.14 Testparticles Gold without UV marker

Testparticles Gold 100 - 150 µm	200003600	2500	10 mg	1.506,96 €
Testparticles Gold 150 - 200 µm	200003610	2000	10 mg	1.285,45 €
Testparticles Gold 200 - 400 µm	200003620	1000	10 mg	1.086,62 €
Testparticles Gold 400 - 600 µm	200003630	400	10 mg	931,39 €
Testparticles Gold 600 - 1000 µm	200003640	250	10 mg	742,90 €
Testparticles Gold 1000 - 1500 µm	200003650	150	10 mg	465,70 €
Testparticles Gold 1500 - 2000 µm	200003660	100	10 mg	380,52 €
Testparticles Gold 2000 - 2500 µm	200003670	70	10 mg	320,04 €
Testparticles Gold 2500 - 3000 µm	200003680	50	10 mg	236,88 €

#### 2.15 Testparticles PVC granular/spherical

Testparticles PVC 0 - 50 µm	211103610		10 mg	269,23 €
Testparticles PVC 50 - 100 µm	211103614		10 mg	220,45 €
Testparticles PVC 100 - 150 µm	211103616		10 mg	174,69 €
Testparticles PVC 150 - 200 µm	211103618		10 mg	132,85 €
Testparticles PVC 200 - 400 µm	211103620		10 mg	93,98 €

### 3. Normparticle cutted

#### 3.1 Normparticle cutted Aluminium without UV marker

Normparticle Aluminium 100 - 150 µm	210006616	10000	10 mg	316,80 €
Normparticle Aluminium 150 - 200 µm	210006618	8000	10 mg	179,52 €
Normparticle Aluminium 200 - 400 µm	210006620	6000	10 mg	135,96 €
Normparticle Aluminium 400 - 600 µm	210006630	4000	10 mg	90,55 €
Normparticle Aluminium 600 - 1000 µm	210006640	2000	10 mg	58,34 €
Normparticle Aluminium 1000 - 1500 µm	210006650	500	10 mg	42,77 €
Normparticle Aluminium 1500 - 2000 µm	210006660	200	10 mg	35,46 €
Normparticle Aluminium 2000 - 2500 µm	210006670	100	10 mg	28,92 €
Normparticle Aluminium 2500 - 3000 µm	210006680	50	10 mg	23,90 €

Description	Item No.:	Number of Particles:	Unit:	Price/ Unit:
<b>3.2 Normparticle cutted Aluminium with UV marker red</b>				
Normparticle Aluminium 100 - 150 µm UV red	210006716	10000	10 mg	323,40 €
Normparticle Aluminium 150 - 200 µm UV red	210006718	8000	10 mg	186,12 €
Normparticle Aluminium 200 - 400 µm UV red	210006720	6000	10 mg	142,56 €
Normparticle Aluminium 400 - 600 µm UV red	210006730	4000	10 mg	97,15 €
Normparticle Aluminium 600 - 1000 µm UV red	210006740	2000	10 mg	64,94 €
Normparticle Aluminium 1000 - 1500 µm UV red	210006750	500	10 mg	49,37 €
Normparticle Aluminium 1500 - 2000 µm UV red	210006760	200	10 mg	42,06 €
Normparticle Aluminium 2000 - 2500 µm UV red	210006770	100	10 mg	35,52 €
Normparticle Aluminium 2500 - 3000 µm UV red	210006780	50	10 mg	29,75 €
<b>3.3 Normparticle cutted Aluminium with UV marker yellow</b>				
Normparticle Aluminium 100 - 150 µm UV yellow	210006816	10000	10 mg	323,40 €
Normparticle Aluminium 150 - 200 µm UV yellow	210006818	8000	10 mg	186,12 €
Normparticle Aluminium 200 - 400 µm UV yellow	210006820	6000	10 mg	142,56 €
Normparticle Aluminium 400 - 600 µm UV yellow	210006830	4000	10 mg	97,15 €
Normparticle Aluminium 600 - 1000 µm UV yellow	210006840	2000	10 mg	64,94 €
Normparticle Aluminium 1000 - 1500 µm UV yellow	210006850	500	10 mg	49,37 €
Normparticle Aluminium 1500 - 2000 µm UV yellow	210006860	200	10 mg	42,06 €
Normparticle Aluminium 2000 - 2500 µm UV yellow	210006870	100	10 mg	35,52 €
Normparticle Aluminium 2500 - 3000 µm UV yellow	210006880	50	10 mg	29,75 €
<b>3.4 Normparticle cutted Aluminium with UV marker blue</b>				
Normparticle Aluminium 100 - 150 µm UV blue	210006916	10000	10mg	323,40 €
Normparticle Aluminium 150 - 200 µm UV blue	210006918	8000	10mg	186,12 €
Normparticle Aluminium 200 - 400 µm UV blue	210006920	6000	10mg	142,56 €
Normparticle Aluminium 400 - 600 µm UV blue	210006930	4000	10mg	97,15 €
Normparticle Aluminium 600 - 1000 µm UV blue	210006940	2000	10mg	64,94 €
Normparticle Aluminium 1000 - 1500 µm UV blue	210006950	500	10mg	49,37 €
Normparticle Aluminium 1500 - 2000 µm UV blue	210006960	200	10mg	42,06 €
Normparticle Aluminium 2000 - 2500 µm UV blue	210006970	100	10mg	35,52 €
Normparticle Aluminium 2500 - 3000 µm UV blue	210006980	50	10mg	29,75 €
<b>3.5 Normparticle cutted Steel without UV marker</b>				
Normparticle Steel 100 - 150 µm	243016616	4000	10mg	335,21 €
Normparticle Steel 150 - 200 µm	243016618	3000	10mg	196,68 €
Normparticle Steel 200 - 400 µm	243016620	2000	10mg	149,56 €
Normparticle Steel 400 - 600 µm	243016630	1000	10mg	99,61 €
Normparticle Steel 600 - 1000 µm	243016640	800	10mg	64,18 €
Normparticle Steel 1000 - 1500 µm	243016650	200	10mg	47,04 €
Normparticle Steel 1500 - 2000 µm	243016660	50	10mg	37,45 €
Normparticle Steel 2000 - 2500 µm	243016670	20	10mg	32,03 €
Normparticle Steel 2500 - 3000 µm	243016680	10	10mg	25,75 €

Description	Item No.:	Number of Particles:	Unit:	Price/ Unit:
<b>3.6 Normparticle cutted Steel with UV marker red</b>				
Normparticle Steel 100 - 150 µm UV red	243016716	4000	10mg	341,21 €
Normparticle Steel 150 - 200 µm UV red	243016718	3000	10mg	204,73 €
Normparticle Steel 200 - 400 µm UV red	243016720	2000	10mg	156,82 €
Normparticle Steel 400 - 600 µm UV red	243016730	1000	10mg	106,87 €
Normparticle Steel 600 - 1000 µm UV red	243016740	800	10mg	71,44 €
Normparticle Steel 1000 - 1500 µm UV red	243016750	200	10mg	54,30 €
Normparticle Steel 1500 - 2000 µm UV red	243016760	50	10mg	44,05 €
Normparticle Steel 2000 - 2500 µm UV red	243016770	20	10mg	38,63 €
Normparticle Steel 2500 - 3000 µm UV red	243016780	10	10mg	32,35 €
<b>3.7 Normparticle cutted Steel with UV marker yellow</b>				
Normparticle Steel 100 - 150 µm UV yellow	243016816	4000	10mg	341,21 €
Normparticle Steel 150 - 200 µm UV yellow	243016818	3000	10mg	204,73 €
Normparticle Steel 200 - 400 µm UV yellow	243016820	2000	10mg	156,82 €
Normparticle Steel 400 - 600 µm UV yellow	243016830	1000	10mg	106,87 €
Normparticle Steel 600 - 1000 µm UV yellow	243016840	800	10mg	71,44 €
Normparticle Steel 1000 - 1500 µm UV yellow	243016850	200	10mg	54,30 €
Normparticle Steel 1500 - 2000 µm UV yellow	243016860	50	10mg	44,05 €
Normparticle Steel 2000 - 2500 µm UV yellow	243016870	20	10mg	38,63 €
Normparticle Steel 2500 - 3000 µm UV yellow	243016880	10	10mg	32,35 €
<b>3.8 Normparticle cutted Steel with UV marker blue</b>				
Normparticle Steel 100 - 150 µm UV blue	243016916	4000	10mg	341,21 €
Normparticle Steel 150 - 200 µm UV blue	243016918	3000	10 mg	204,73 €
Normparticle Steel 200 - 400 µm UV blue	243016920	2000	10 mg	156,82 €
Normparticle Steel 400 - 600 µm UV blue	243016930	1000	10 mg	106,87 €
Normparticle Steel 600 - 1000 µm UV blue	243016940	800	10 mg	71,44 €
Normparticle Steel 1000 - 1500 µm UV blue	243016950	200	10 mg	54,30 €
Normparticle Steel 1500 - 2000 µm UV blue	243016960	50	10 mg	44,05 €
Normparticle Steel 2000 - 2500 µm UV blue	243016970	20	10 mg	38,63 €
Normparticle Steel 2500 - 3000 µm UV blue	243016980	10	10 mg	32,35 €
<b>3.9 Normparticle cutted Copper without UV marker</b>				
Normparticle Copper 100 - 150 µm	211116616	4000	10 mg	316,80 €
Normparticle Copper 150 - 200 µm	211116618	3000	10 mg	179,52 €
Normparticle Copper 200 - 400 µm	211116620	2000	10 mg	135,96 €
Normparticle Copper 400 - 600 µm	211116630	1000	10 mg	90,55 €
Normparticle Copper 600 - 1000 µm	211116640	800	10 mg	58,34 €
Normparticle Copper 1000 - 1500 µm	211116650	200	10 mg	42,77 €
Normparticle Copper 1500 - 2000 µm	211116660	50	10 mg	35,46 €
Normparticle Copper 2000 - 2500 µm	211116670	20	10 mg	28,92 €
Normparticle Copper 2500 - 3000 µm	211116680	10	10 mg	23,90 €



Description	Item No.:	Number of Particles:	Unit:	Price/ Unit:
<b>3.10 Normparticle cutted Polystyrole without UV marker</b>				
Normparticle PS 200 - 400 µm	211006620	5000	10 mg	221,56 €
Normparticle PS 400 - 600 µm	211006630	3000	10 mg	145,68 €
Normparticle PS 600 - 1000 µm	211006640	1500	10 mg	95,33 €
Normparticle PS 1000 - 1500 µm	211006650	800	10 mg	70,70 €
Normparticle PS 1500 - 2000 µm	211006660	400	10 mg	54,54 €
Normparticle PS 2000 - 2500 µm	211006670	200	10 mg	44,23 €
Normparticle PS 2500 - 3000 µm	211006680	100	10 mg	34,08 €
<b>3.11 Normparticle cutted Polypropylene coloured without UV marker</b>				
Normparticle PP 200 - 400 µm	211106620	5000	10 mg	221,56 €
Normparticle PP 400 - 600 µm	211106630	3000	10 mg	145,68 €
Normparticle PP 600 - 1000 µm	211106640	1500	10 mg	95,33 €
Normparticle PP 1000 - 1500 µm	211106650	800	10 mg	70,70 €
Normparticle PP 1500 - 2000 µm	211106660	400	10 mg	54,54 €
Normparticle PP 2000 - 2500 µm	211106670	200	10 mg	44,23 €
Normparticle PP 2500 - 3000 µm	211106680	100	10 mg	34,08 €
<b>4. Silicates granular</b>				
<b>4.1 Corundum</b>				
Corundum 150 - 200 µm	415003618		10 mg	36,75 €
Corundum 200 - 400 µm	415003620		10 mg	31,28 €
Corundum 400 - 600 µm	415003630		10 mg	26,46 €
Corundum 600 - 1000 µm	415003640		10 mg	24,85 €
Corundum 1000 - 1500 µm	415003650		10 mg	21,69 €
Corundum 1500 - 2000 µm	415003660		10 mg	18,98 €
<b>4.2 Aluminum oxide Al<sub>2</sub>O<sub>3</sub> (white)</b>				
Aluminum oxide 150 - 200 µm	412003618		10 mg	36,75 €
Aluminum oxide 200 - 400 µm	412003620		10 mg	31,28 €
Aluminum oxide 400 - 600 µm	412003630		10 mg	26,46 €
Aluminum oxide 600 - 1000 µm	412003640		10 mg	24,85 €
Aluminum oxide 1000 - 1500 µm	412003650		10 mg	21,69 €
Aluminum oxide 1500 - 2000 µm	412003660		10 mg	18,98 €
<b>4.3 Molding sand</b>				
Molding sand 150 - 200 µm	413003618		10 mg	36,75 €
Molding sand 200 - 400 µm	413003620		10 mg	31,28 €
Molding sand 400 - 600 µm	413003630		10 mg	26,46 €
Molding sand 600 - 1000 µm	413003640		10 mg	24,85 €
Molding sand 1000 - 1500 µm	413003650		10 mg	21,69 €
Molding sand 1500 - 2000 µm	413003660		10 mg	18,98 €
<b>5. Others</b>				
Basket for test standards for use in cleaning systems			1	198,00 €

## General Information

### Standard particles / test particles

The prices for standard particles are each based on a minimum order quantity of 10 mg. If smaller quantities are requested, we charge a minimum quantity surcharge. The milled test particles are specifically produced metal chips with fixed defined length dimensions. The cutted test particles are special produced metal or PE plates with fixed length dimensions. The particle length is measured according to VDA 19 Part 1 / ISO 16 232 by sampling during production. There is no determination or measurement of the particle width and particle height. The specified weight is a minimum weight, a positive addition is possible and is sought. The loose particles are not counted. The length of all particles of a size class are within a certainty > 99% within the specified value VDA 19 - size class. Delivery is loose as bulk material in a test tube. The particle numbers given in the price list are estimated approximate values. For the dimensions given in the price list for particles < 600 micron, a tolerance range of  $\pm 50 \mu\text{m}$  applies. Particles > 600 micron a tolerance range of  $\pm 100 \mu\text{m}$  applies.

### Test standards for cleanliness tests

In contrast to the particles listed above, the test standards for cleanliness tests can optionally be produced with all the particles offered in this list in individual quantities. A distinction must be made between the hydrophilic and the lipophilic variant. Hydrophilic test standards are used for water-soluble extraction media, lipophilic test standards for fat-soluble extraction media. If there is no indication of the number of particles, the particle material or the extraction medium used when ordering, the standard variant applies: *Lipophilic with a total of approx. 30 cutted stainless steel particles in the VDA 19 size classes H - K.*

### Note on UV indicator coated particles

The UV coating is not distributed over the entire surface of the particle. Most of the particles are only partially coated with UV indicator. Despite careful execution of the coating process as well as a random check of the coated particles of each production order, it may happen that individual particles are not coated with UV indicator. The intensity of the fluorescence is particularly high in the case of the yellow UV indicator. The red UV indicator fluoresces slightly weaker, but is still very well detectable. The fluorescence at the blue indicator, however, is only very weak. Under unfavorable environmental conditions, the fluorescence may therefore not be detected. UV indicator-coated particles can be detected with a simple UV source (eg bill validator or UV flashlight). Other bones are not required. The environment must be absolutely dark and free from stray light. In a dark room, the particles can also be detected under a microscope when illuminated with a UV lamp. The substrate must be black for the detection of the UV coating. A white analysis filter is e.g. not suitable. The coating is stable in most liquids used, for example, for extraction during a cleanliness test. At temperatures above  $100^\circ\text{C}$ , at high pressures or flow rates, as well as under severe mechanical stress, such as occur in hydraulic power units, the coating may peel off.