

# NeuMat TPU Powder



Spherical shape/球形



Adjustable Distribution/良好分布



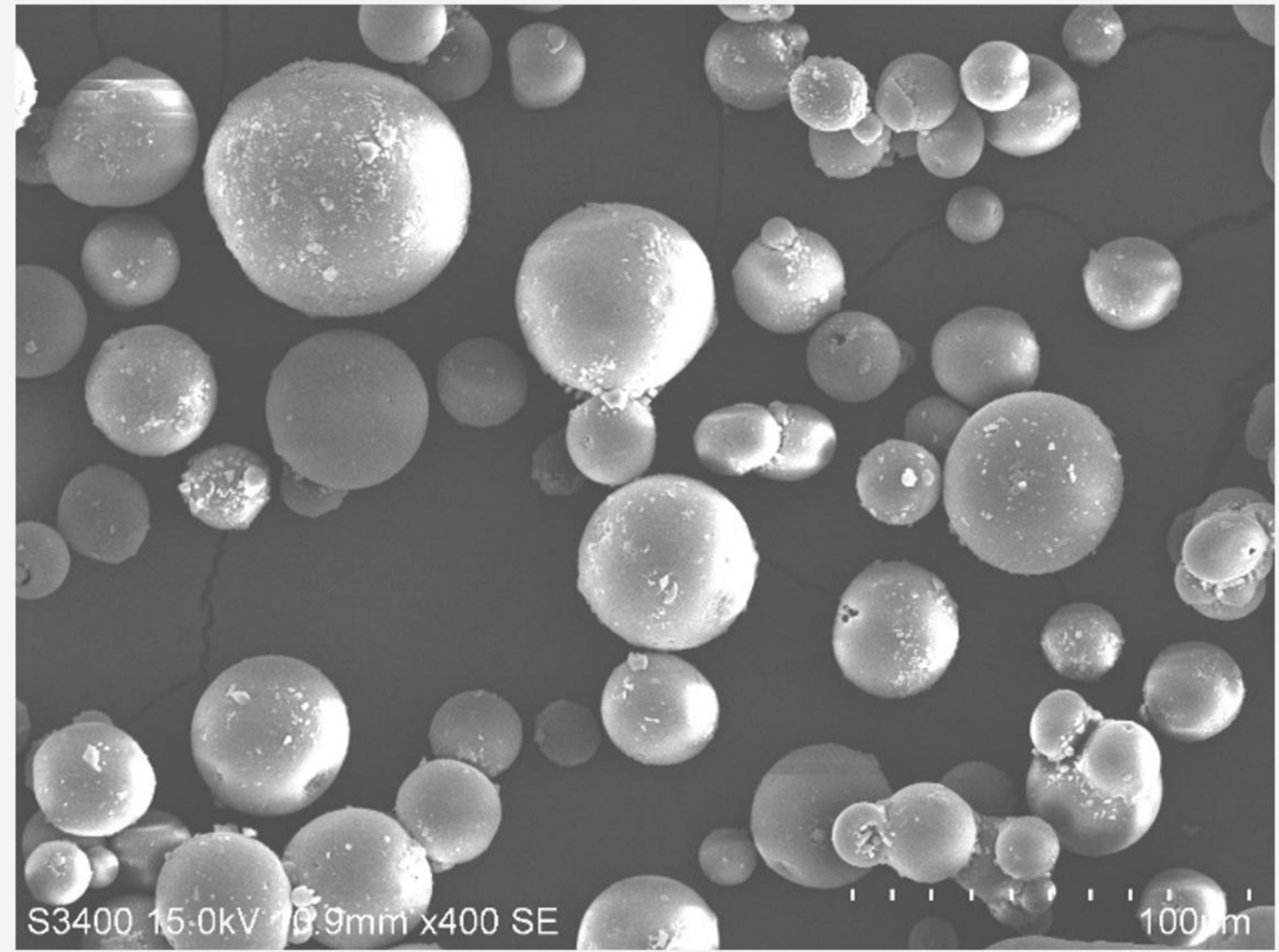
Perfect Flow/优异流动性



Wide Sintering Window/宽烧结窗口



Good Mechanical Behavior/良好机械力学性能



| 类别<br>Items                       | 测量<br>Measurement                       | 方法<br>Standard | UE 385          | UE 354<br>柔软型   |
|-----------------------------------|---|----------------|-----------------|-----------------|
| 粉末特性<br>/Powder<br>Properties     | 比重/Specific Gravity                     | ISO1183        | 1.2 grams/CC    | 1.2 grams/CC    |
|                                   | 吸水率/Water Absorption                    |                | <0.5%           | <0.5%           |
|                                   | 熔体体积流动速率 (MVR)                          | ISO1133        | 18 CC / 10min   | 18 CC / 10min   |
|                                   | 平均粒径/Mean Particle Size D50             | ISO13320       | 40-50 microns   | 40-50 microns   |
|                                   | 粒度范围/Particle Size Range D10-D90        | ISO13320       | 10 - 80 microns | 15 - 80 microns |
|                                   | 堆积密度/Apparent Density                   | ISO 1068-1975  | 0.53 grams/CC   | 0.51 grams/CC   |
| 热性能<br>/Thermal<br>Properties     | 烧结件密度/Density of Sintered Part          | ISO 61         | 1.05 grams/CC   | 1.03 grams/CC   |
|                                   | 熔点, 熔点/Melting Point                    | ISO11357       | 120 Deg C       | 120 Deg C       |
| 机械性能<br>/Mechanical<br>Properties | 维卡软化温度/Vicat Softening<br>Temperature A | ISO306         | 90 Deg C        | 85 Deg C        |
|                                   | 肖氏硬度/Shore Hardness                     | ISO868         | 80A             | 63A             |



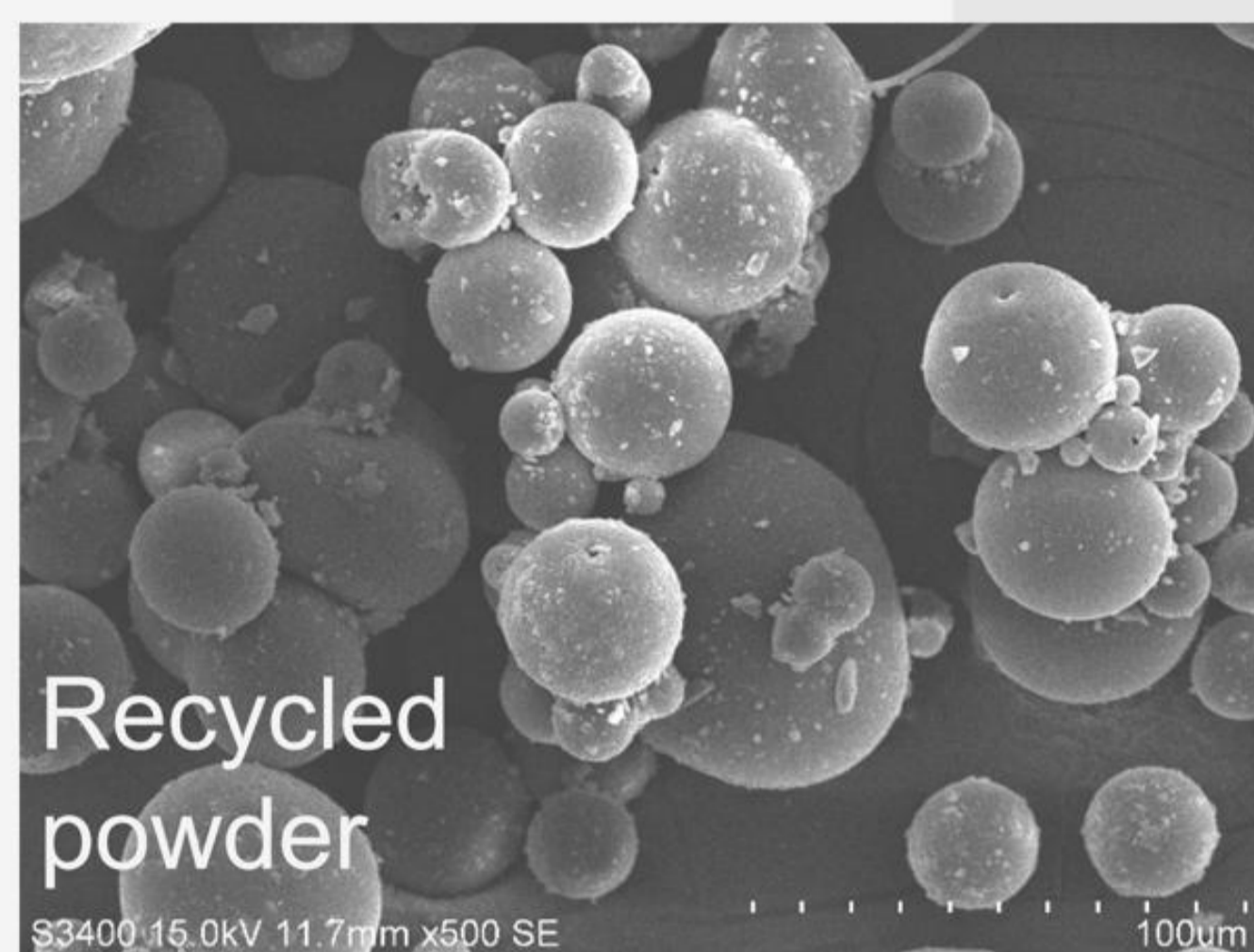
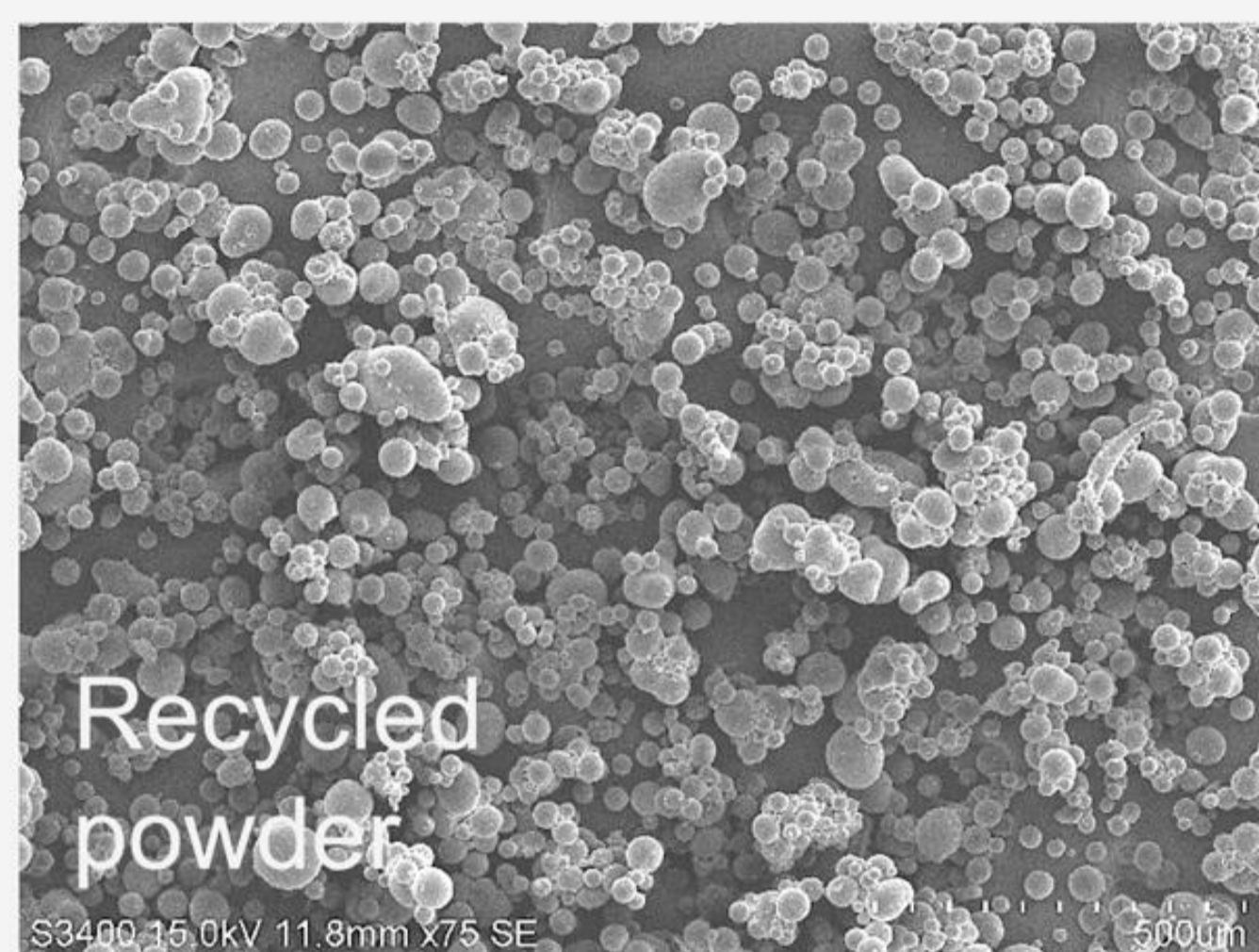
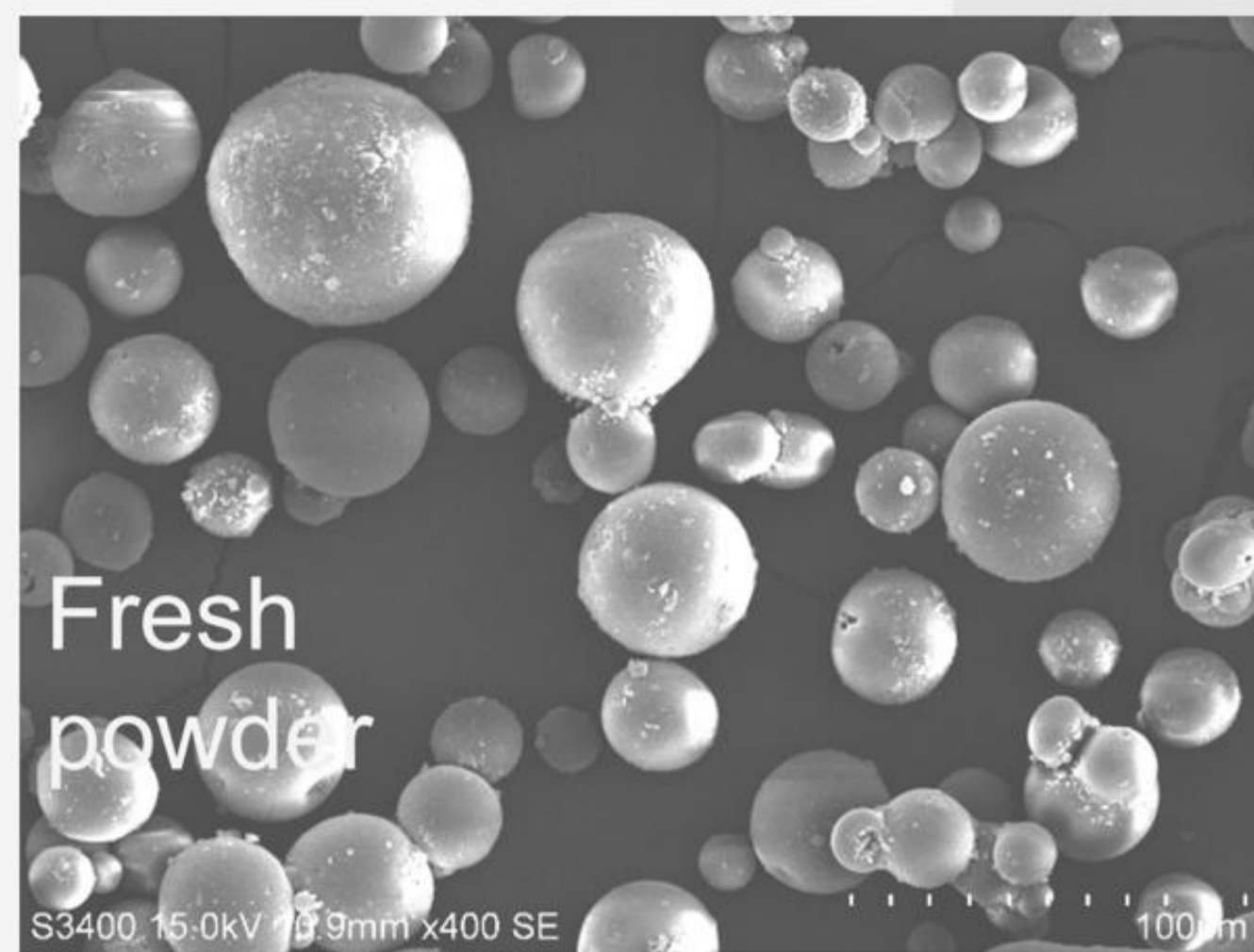
## 检测报告/Test Report

检出物符合国际IEC、欧盟REACH相关标准

## Work with all PBF printers 打印机适配



# Recyclability/循环性



◆Fresh powder/新粉:  
Regular sphere, clean and well-dispersed  
规则球形; 结晶, 良好分布

◆Recycled powder:/循环粉 >100 cycles  
Rough surface, sphere and aggregates(50-200 $\mu$ m); wider particle size distribution  
粗糙表面; 规则球形; 粉末聚集; 宽的粒径分布

# Raw/used powder comparison 新旧粉对比



Table 1 Difference between raw powder and recycled powder (more than 100 cycles)

表 1 原始粉末与循环粉末 (100次以上循环) 的差异

| Item/项目                      | Raw powder/原始粉末            | Recycled powder/循环粉末 |
|------------------------------|----------------------------|----------------------|
| Powder characteristics /粉末特性 | Morphology/形貌              | smooth surface/光洁表面  |
|                              | Chemical structure/化学结构    | -                    |
|                              | Molecular weight/分子量       | -                    |
|                              | Packing density/堆积密度       | -                    |
|                              | Particle distribution/粒径分布 | -                    |
|                              | Aggregates/聚集              | -                    |
|                              | Flowability/流动性            | Good/良好              |
| Sintered parts /烧结件          | Tensile strength/拉伸强度      | 6 MPa                |
|                              | Elongation at break/断裂伸长率  | 400 %                |
|                              | Surface roughness/表面粗糙度    | 18/12 $\mu$ m        |

## Application应用

Mid-sole /中底  
Shoe-upper/鞋面  
Slipper/拖鞋  
Heelpiece/后跟  
Insoles/鞋垫

Cushion/座垫  
Backrest/靠背  
Gloves/手套  
Handles/把手  
Liner/内衬

glasses frames/镜框  
Watchband/表带  
3C digital/3C数码  
Package/包  
Accessory/饰品

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