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Particular properties of micron size powder particles

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Abstract

The relations of the deformation resistance of powder particle, the powder pressing density, the particle conglomeration of dry powder, the agglomeration of powder particles and their ability for breakage due to vibration in melt environment on the particle diameter are presented. Based on the obtained relations, it is shown that the boundary between the properties passes within the narrow range of 1-15 microns. In further fragmentation of the object its size in mathematical models should be taken into account starting exactly from this range.