1. PRODUCT NAME

M-Flex

2. GENERAL DESCRIPTION

Powder compound for Selective Heat Sintering (SHS) into plastic parts. Parts are for prototypes only, not functional parts. For best properties, parts should be conditioned in high humidity for a few days.

The compound is a mixture of polyamide and polycarbonate. It has been developed for general use for the SHS 3D printing process using a BluePrinter.

The compound is a free flowing and unpigmented white powder. It is delivered in PE-bottles for mixing with the cleaning station compound and filling of drawers in SHS.

Material from printer drawers can be reused after sieving in the BluePrinter Cleaning Station or similar filter.

Material from cake can be downsized and re-used for some applications, as described in the printer manual. Strongly Yellow discolored material should be discarded.

3. TYPICAL PROPERTIES OF THE COMPOUND

Form :	Free flowing powder
MFR (ASTM D1238):	3 - 5 g/10 min
Melting temperature (ASTM D3418):	105 - 120 ^{o}C
Particle size (ASTM D4468):	Average 65 µm
Bulk Density:	0,5 gram/cm^3

4. TYPICAL PROPERTIES OF SHS PRINTED PARTS

Ultimate tensile strength (ASTM D638):	7,5 MPa
Young´s Modulus (ASTM D638):	480 MPa
Elongation at break (ASTM D638):	3 - 5 %
Typical parts density:	0,85 g/cm^3
Moisture absorption:	2% (24 hours)

Tensile strength refers to parts made in the X-Y plane and depend on the position.

Parts should be allowed to crystallize, by either the controlled cooling in the printer, or by heat treatment at 70 to 75°C for 1 hour.

5. HANDLING AND STORAGE

Store in closed containers. Store cold or at room temperature, in a dry and dark place. Temperature should not exceed 40°C. Handle as organic dusty powder.

Please consult the MSDS before use.

Under these conditions a storage life is at least 12 months.

6. PRELIMINARY TECHNICAL DATA SHEET:

The data given in this PDS are based on our latest knowledge and are subject to changes without prior notice. It is not to be understood as guaranteed properties.

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