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Micron Man CSV File Output Data Explanation

Common OFDA100 or OFDA2000 data columns 1 to 19

Column 1 :- Sample ID - Client Eartag number or name provided for sample. (usually max 10 characters)

Column 2 :- FD (um) - Average Fibre Diameter. This is the average of thousands of individual measurements per sample. The measurement unit is micron(um), and is one millionth of one metre.

Column 3 :- SD (um) - Standard Deviation of fibre diameter. If viewing a histogram, SD is the horizontal measurement in micron, of the area under the graph either side of the FD where approximately 2/3 of the fibre diameters lie.

Column 4 :- CV % - Co-efficient of Variation of fibre diameter percent. $CV\% = ((SD/FD) * 100)$ CV is SD expressed as a % of FD

Column 5 :- CE % - Coarse Edge %. This is the percentage of fibres that lie 10 microns greater above the FD.

Column 6 :- CF % - Comfort Factor. This is % of fibres below 30 micron and is an indication of the degree of comfort that might be expected of the fibre tested.

Column 7 :- >30% - Prickle Factor. This is % of fibres above 30 micron and is an indication of the degree of prickle that might be expected of the fibre tested.

Column 8 :- SF (um) - Spinning Fineness. Combine the FD & CV to a single number to represent the spinning quality expressed in microns. $SF = 0.881 * (FD * \sqrt{1 + (5 * ((CV/100)^2))})$

Column 9 :- <15% - % fibres less than 15 microns. This is % of fibres below 15 micron and is an indicator of % of fine wool.

Column 10 :- CRV(Deg/mm) - Fibre Curvature describes how curved small fibre sections are and expressed in Degrees per millimetre length, and relates to crimp frequency. Lower CRV relates to lower crimp frequency, while higher CRV relates to higher crimp frequency.

Column 11 :- SDC(Deg/mm) - Standard Deviation of Curvature is a measurement of the variability of CRV expressed in Degrees/mm. This relates to crimp definition. The lower the SDC the more the crimps are similar. (ie crimp is well defined) The higher the SDC relates to more variable crimp.

Column 12 :- Yield% - Washing Yield. This is the amount of wool left after scouring expressed as a percentage. The calculation is $((\text{Oven Dried WT}/\text{Greasy WT}) + \text{Moisture Adjust Value}) * 100$

Column 13 :- GFW(Kg) - Greasy Fleece Weight. This is the weight of the actual fleece after shearing.

Column 14 :- WT(Kg) - WT = Bodyweight of animal being tested.

Column 15 :- FEM(um) - Fine Edge Micron. This is the number of microns below the FD where the start of the finest 5% fibres lie.

Column 16 :- CEM(um) - Coarse Edge Micron. This is the number of microns above the FD where the start of the strongest 5% fibres lie.

Column 17 :- SL (mm) - Staple Length expressed in millimetres measured on the Fibre Science Length & Strength machine.

Column 18 :- SS (N/ktex) - Staple Strength expressed in Newtons force per kilotex. This is the average destructive break force measurement required to break all fibres in a number of staples measured on the Fibre Science Length & Strength machine.

Column 19 :- WEC(epg) - Faecial Worm Egg Counts expressed in Eggs per Gram.

Column 20 :- RtoC (Kpa) - Resistance to Compression expressed in Kilopascals, which is force per unit area. One Kilopascal= One Newton per square metre.

Column 21 :- pRtoC (Kpa) - Predicted Resistance to Compression. This is a complex calculation using other known measurements.

Column 22 :- Comments (OFDA100 only) - 4 comment columns total.

Unique OFDA2000 data columns 20 to 35

Column 20 :- SL (mm) - Staple Length measured by OFDA2000.

Column 21 :- FPFT (mm) - Finest Point From Tip. OFDA2000 fibre is always measured Tip to Base and this measurement is the point in the fibre that is the narrowest width measured from the Tip.

Column 22 :- MIND (um) - MINimum Diameter of the fibre being measured along the staple, expressed in micron (um).

Column 23 :- MAXD (um) - MAXimum Diameter of the fibre being measured along the staple, expressed in micron (um).

Column 24 :- MFE (um) - Mean Fibre Ends is the average fibre measurement of the first two passes and the last two passes from the OFDA2000. (ie first 2 tip and last 2 base) This is expressed in microns(um) and can indicate how prickly the ends are.

Column 25 :- SDI (um) - Skin DIameter is the fibre measurement of the last pass on the OFDA2000 (Remember always Tip to Base) The Base is closest to the skin and relates to the current growth.

Column 26 :- SDD (um) - Skin SD is the Standard Deviation of fibre diameter of the last pass and relates to current growth.

Column 27 :- SCV % - Skin CV is the Coefficient of Variation of fibre diameter of the last pass and relates to current growth.

Column 28 :- SBlob % - Small Blob% area along the fibre.

Column 29 :- LBlob % - Large Blob% area along the fibre.

Column 30 :- ALSD (um) - ALong SD is the Standard Deviation of fibre diameter along the staple expressed in micron (um).

Column 31 :- ALCV % - ALong CV is the Coefficient of Variation of fibre diameter along the staple expressed as a percentage.

Column 32 :- ACSD (um) - ACross SD is the Standard Deviation of fibre diameter across the staple expressed in micron (um).

Column 33 :- ACCV % - ACross CV is the Coefficient of Variation of fibre diameter across the staple expressed as a percentage.

Column 34 :- pRtoC (Kpa) - Predicted Resistance to Compression

Column 35 :- Comments (OFDA2000) - 4 comment columns total.