

**CERTIFICATE OF ANALYSIS  
MCC 102 Microcrystalline Cellulose  
NF, Ph.Eur.**

Test Items	Units	Limits	Results
Particle size distribution D10	μ	Not more than 45	26
Particle size distribution D50	μ	70 - 100	92
Particle size distribution D90	μ	Not less than 140	190
Identification A		Violet-blue color	Conforms
Degree of polymerization		210 - 270	241
Conductivity	μs/cm	Not more than 75.0	41.6
pH		5.5 - 7.0	6.6
Loss on drying	%	Not more than 7.0	3.9
Bulk density	g/ml	0.28 - 0.35	0.31
Residue on ignition (sulfate ash)	%	Not more than 0.05	0.02
Water-soluble substances	%	Not more than 0.25	0.11
Heavy metals	ppm	Not more than 10	Conforms
Ether-soluble substances	%	Not more than 0.050	0.003
Total aerobic microbial count	cfu/g	Not more than 100	Conforms
Total molds and yeasts count	cfu/g	Not more than 10	Conforms
Escherichia coli	/1g	Absence	Conforms
Staphylococcus aureus	/1g	Absence	Conforms
Salmonella species	/10g	Absence	Conforms
Pseudomonas aeruginosa	/1g	Absence	Conforms

**Additional Statement:** The product meets the requirement for Residual Solvents USP<467>

\* Data based on manufacturer's document

*John*

Quality Control

