

**CERTIFICATE OF ANALYSIS**

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Product Name	<b>Hindcel® 101 - MICROCRYSTALLINE CELLULOSE BP 2022 ,USP-NF 40</b>		
Sample No	MCC/24040074		
T.R. No.	BD/TR/0074-A/2024		
Sample Size.	100.00 gm		
Mfg. Date	April-24		
Re Test Date	April-27		
Date of Analysis :			30/04/2024

SR. NO.	TESTS	SPECIFICATION	RESULTS	TEST METHOD
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**A. CHEMICAL TEST**

1.	Appearance	White or almost white, fine or granular, slightly hygroscopic powder.	Fine, white Odourless powder.	BP, USP-NF
2.	Solubility			
	(1) Solubility in water, acetone, in anhydrous ethanol, in toluene, in dilute acids and in a 50 g/L solution of sodium hydroxide.	Practically insoluble in water acetone, in anhydrous ethanol, in toluene, in dilute acids and in a 50 g/L solution of sodium hydroxide.	Complies	BP, USP-NF
	(2) Dissolve 50 mg in 10 mL of ammoniacal solution of copper tetrammine R.	It should be dissolves completely, leaving no residue.	Complies	
3.	Identification Tests:			
	Test (A) By IR	The sample spectrum should be concordant with that of the Reference spectrum.	Complies	BP, USP-NF
	Test (B) By chemical	The substance becomes should be violet-blue.	Complies	
	Test (C) The degree of polymerization	The degree of polymerization should not be more than 350.	Complies	
4.	pH of Solution [5.0 g with 40 mL CO <sub>2</sub> free water ]	5.0 to 7.5	6.11	BP, USP-NF
5.	Conductivity	The conductivity of the test solution should be does not exceed the conductivity of the water by more than 75µS.cm <sup>-1</sup>	64 µS.cm <sup>-1</sup>	BP, USP-NF
6.	Ether-soluble substances	Maximum 0.05%	0.03 %	BP, USP-NF
7.	Water-soluble substance	Maximum 0.25%	0.16 %	BP, USP-NF
8.	Heavy Metals	Maximum 10 ppm	Complies	BP, USP-NF
9.	Loss on drying (at 105° C for 3 h)	Maximum 7.0%	4.80 %	BP, USP-NF
10.	Sulphated ash (Calculated on dried basis)	Maximum 0.1%	0.07 %	BP, USP-NF

**B. PHYSICAL TEST**

1.	Bulk Density (Untapped)	0.25 to 0.40 g/cm <sup>3</sup>	0.37 g/cm <sup>3</sup>	BP, USP-NF
2.	Sieve analysis (% Retention by Sieve shaker)	60 Mesh- Not more than 1.0 %	0.00 %	
		200 Mesh- Not more than 30.0 %	18.40 %	

**C. MICROBIAL TEST**

1.	Total Aerobic microbial Count	Not more than 1000 CFU/ g	Complies	BP, USP-NF
2.	Total yeasts and molds count	Not more than 100 CFU/ g	Complies	
3.	Escherichia coli & Salmonella	Should be Absent	Absent	
4.	Pseudomonas aeruginosa	Should be Absent	Absent	
5.	Staphylococcus aureus	Should be Absent	Absent	

**Remark: The Product passes as per BP 2022 ,USP-NF 40,IH (Type 101) Specifications.**