SPECIFICATIONS & CERTIFICATE OF ANALYSIS

PULLULAN
(Food Grade)

Lot No. 1F2212 Mfg. Date: Jun. 22, 2021
Item Code: PULLULANFG Exp. Date: Jun. 21, 2022

ITEMS	SPECIFICATIONS	TEST RESULTS
Description	White to off-white odorless powder	Pass
Identification		
1. **Viscosity**	Viscous Solution is produced	Pass
2. **Reactivity with Pullulanase**	Substantial loss of viscosity is observed	Pass
3. **Reactivity with Macrogol**	White precipitate is formed immediately	Pass
Content*	> 90.0%	93.2%
Heavy metals (as Pb)	≤ 5.0 µ g/g	Pass
Lead	≤ 0.1 µ g/g	Pass
Arsenic (as AS_2O_3)	≤ 2.0 µ g/g	Pass
Loss on drying	≤ 6.0%	1.0%
Mono-, Di-, and oligosaccharides	≤ 10.0%	5.8%
Total nitrogen	≤ 0.05%	0.01%
pH	5.0 – 7.0	5.9
Residue on ignition	≤ 1.5%	0.0%
Kinetic viscosity	100 – 180 mm^2/s	149 mm^2/s
Total aerobic microbial count	≤ 300 CFU/g	0 CFU/g
E. Coli	Negative	Negative
Particle size	≤ 1.70 mm	Pass

*Based on the FCC calculation method