



Product Specification Expancel® FG Microspheres

	FG41 DU 80 ⁽ⁱ⁾	FG92 DU 120	FG92 MB 120
Particle size D(0.5): ⁽¹⁾	16–24 µm	28–38 µm	
Thermomechanical Analysis ⁽²⁾			
Tstart	93–103°C	118–128°C	
Tmax	138–153°C	191–203°C	
TMA-density		≤ 14 (kg/m ³)	
Density at 140°C	≤ 17 (kg/m ³)		
Residual substances			
Acrylonitrile	≤ 1 (mg/kg)	≤ 30 (mg/kg)	≤ 20 (mg/kg)
Methylacrylate	≤ 10 (mg/kg)		
Methacrylonitrile	≤ 5 (mg/kg)	≤ 100 (mg/kg)	≤ 65 (mg/kg)
Sodium 2-cyanoethanesulfonate	≤ 50 (mg/kg)	≤ 200 (mg/kg)	≤ 130 (mg/kg)
Sulfite	≤ 2000 (mg/kg)	≤ 2000 (mg/kg)	≤ 1300 (mg/kg)
Sodium 3-methoxy-3-oxopropane-1-sulfonate	≤ 50 (mg/kg)		
Hexadecanol	≤ 3000 (mg/kg)		
Vinylacetate			≤ 3500 (mg/kg)
2,6-Di-tert-butyl-p-cresol			≤ 260 (mg/kg)
Grade of Microsphere			FG92 DU 120
Concentration of MS (%)			65 ± 1
Carrier			EVA*
Height of foaming ⁽³⁾ (mm)			90–140 (200°C)
Bulk density (g/l)			400–500

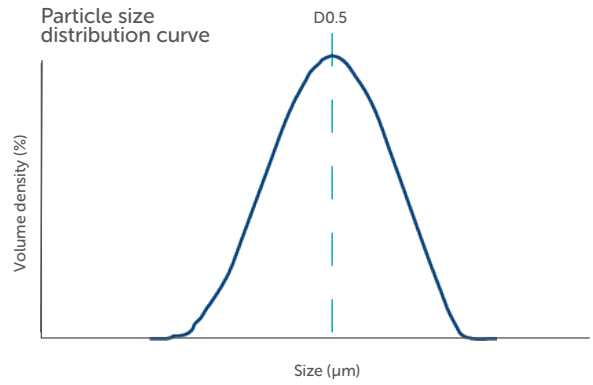
Product information

- DU = Dry powder of unexpanded Expancel® microspheres
- MB = Masterbatch of unexpanded Expancel® microspheres
- * EVA = Copolymer of ethylene vinylacetatekg.
- Use the product within three years after production date, if unopened.
- Not all grades available in all locations. Check local sales office for availability.

(i) FG41 DU 80 is approved by FDA (US Food and Drug Administration) for use in agglomerated cork.

References

- 1) **Particle size:** measured by laser diffraction; Low Angle Laser Light Scattering (LALLS). D(0.5) = average particle size. More information: "Particle size of Expancel® microspheres".
- 2) **Thermomechanical Analysis:** performed on a thermomechanical analyzer, measuring dimensional changes as a function of temperature. More information: "Thermomechanical analysis of Expancel® microspheres".
- 3) **Height of foaming:** measurement of the height of foam, given by free expansion of Expancel® MB microspheres. Performed in a conventional hot air oven. More information: "Analytical Method QMS-56".



To find out more about our microspheres,
visit our website:
nouryon.com/products/expancel-microspheres

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