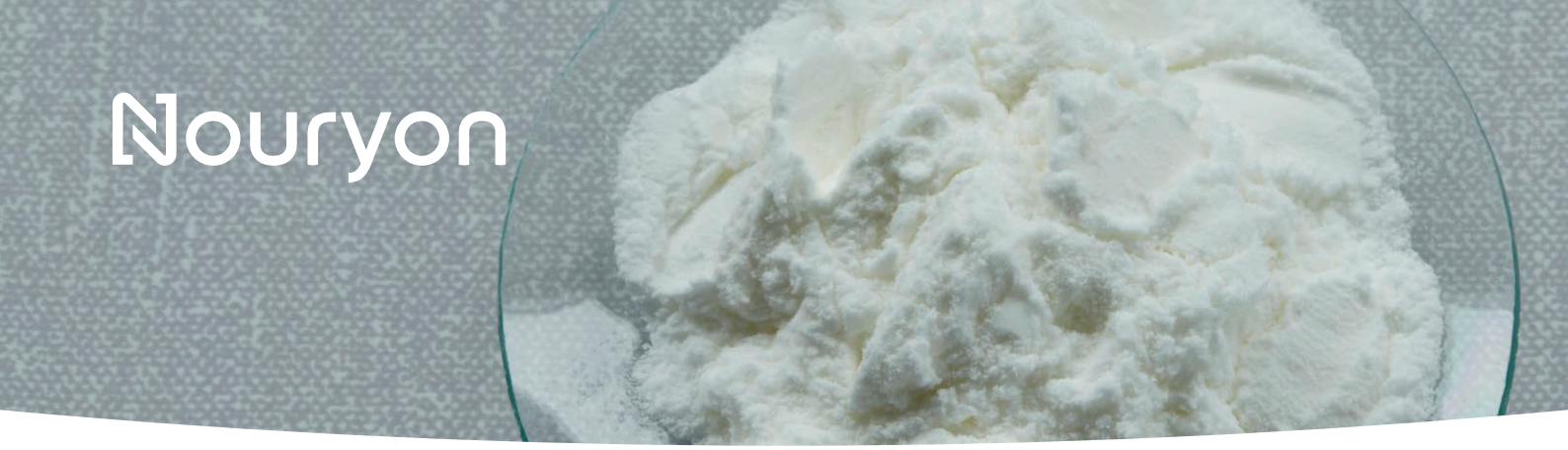

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Technical Data Sheet
Expancel® DU Microspheres

Specification

(values presented on Certificate of Analysis)

Typical characteristic

Expancel® grade	Thermomechanical Analysis [1] Tstart °C	Tmax °C	Density kg/m³	Particle size D(0.5) [2] µm	Solvent resistance [3]
031 DU 40	80–95	118–133	≤ 12	10–16	3
053 DU 40	95–102	136–144	≤ 20	10–16	3
051 DU 40	105–110	142–151	≤ 25	9–15	4
044 DU 20	100–108	143–160	≤ 25	6–9	3
043 DU 80	94–114	144–164	≤ 10	16–24	5
044 DU 40	98–108	150–170	≤ 15	9–15	4
920 DU 20	118–143	152–172	≤ 25	5–9	5
920 DU 40	121–131	168–178	≤ 17	10–16	5
909 DU 80	118–128	172–187	≤ 8	18–24	5
920 DU 80	121–131	177–192	≤ 14	18–24	5
HP92 DU 80	116–126	180–200	≤ 20	20–30	5
950 DU 80	136–146	188–200	≤ 10	18–24	5
093 DU 120	119–129	186–201	≤ 6.5	28–38	5
951 DU 120	131–141	191–206	≤ 9	28–38	5
930 DU 120	117–127	189–204	≤ 6.5	28–38	5
920 DU 120	118–128	191–203	≤ 14	28–38	5
980 DU 100	169–189	209–229	≤ 14	20–30	5

New products:

WB95 DU 120	130–142	191–206	≤ 9	28–38	5
WB96 DU 120	130–140	190–210	≤ 10	28–38	5

Product information

- DU = Dry powder of unexpanded Expancel® Microspheres
- Use the product within three years after production date, if unopened.
- Not all grades available in all locations. Check local sales office for availability.

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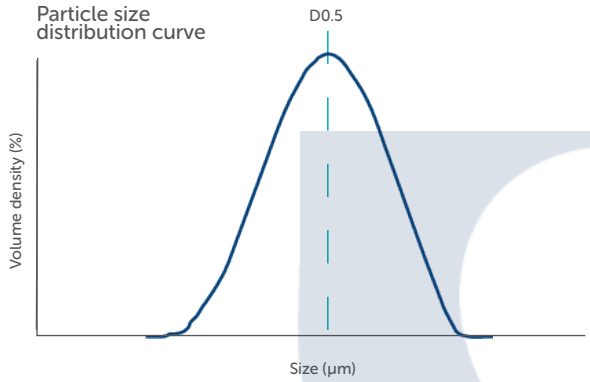
References

1) **Thermomechanical Analysis:** performed on a thermomechanical analyzer, measuring dimensional changes as a function of temperature.
   More information: "Thermomechanical analysis of Expancel® microspheres".
2) **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".



3) **Solvent resistance**: The microspheres are immersed in pure, liquid chemical or water solution of the chemical for 14 days at room temperature. TMA is used to determine the effects.
   More information: "Chemical resistance of Expancel® microspheres".

Solvent resistance rating:

5 = no unfavorable effects expected
4 = special care needed if mixed for prolonged periods or at elevated temperatures
3 = poor chemical resistance

These ratings are not conclusive. We recommend that you carry out your own tests with regard to the intended use of Expancel® microspheres.

More information

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

or contact us at:
E: info.expancel@nouryon.com

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2024-12

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