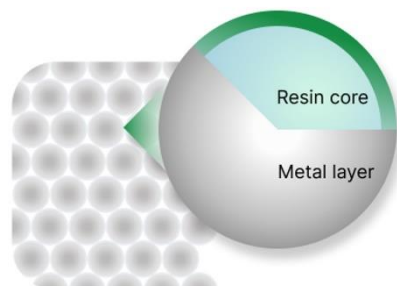
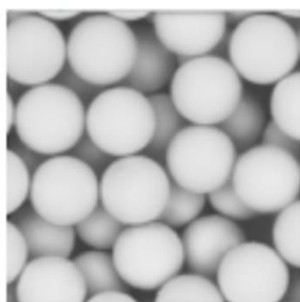


Spherica® Ag series

Monosized silver-coated polymer particles



Monosized silver-coated polymer particles



Product features

- Cost-efficient – up to 90% silver reduction
- Tailor adhesive laydown and joint height/stand-off
- Superior reliability
- Truly spherical particles with highly uniform size distribution

Products

| | Ag-3-01 | Ag-4-02 | Ag-5-01 | Ag-10-03 | Ag-20-02 | Ag-30-01 |
|--|----------------------|----------------------|----------------------|----------------------|------------------------|------------------------|
| Particle core diameter (µm): | 3.0 ± 0.5 | 4.0 ± 0.5 | 5.0 ± 0.5 | 10.0 ± 0.8 | 20.0 ± 1.0 | 30.0 ± 3.0 |
| Polymer core material: | Styrene | Styrene | Styrene | Styrene | Styrene | Styrene |
| CV (%): | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 |
| T _g of polymer core: | None ¹ | None ¹ | None ¹ | None ¹ | None ¹ | None ¹ |
| Decomposition temp. polymer core (°C): | > 340 | > 340 | > 340 | > 340 | > 340 | > 340 |
| Silver thickness (µm): | 0.13 – 0.18 | 0.11 – 0.15 | 0.13 – 0.16 | 0.13 – 0.15 | 0.15 – 0.16 | 0.18 – 0.22 |
| Silver content (wt%): | 77 | 67 | 64 | 46 | 33 | 30 |
| Material density (g/cc): | 3.4 | 2.7 | 2.5 | 1.8 | 1.5 | 1.4 |
| Volume resistivity (Ω cm) ² : | 2 x 10 ⁻⁴ | 2 x 10 ⁻⁴ | 4 x 10 ⁻⁴ | 6 x 10 ⁻⁴ | 1.6 x 10 ⁻³ | 1.6 x 10 ⁻³ |
| Recommended filler loading ICA (wt%): | 67 – 76 | 63 – 72 | 60 – 71 | 53 – 64 | 49 – 60 | 47 – 59 |
| Minimum curing temperature (°C): | 80 | 80 | 80 | 80 | 80 | 80 |

¹ No T_g visible in DSC

² Minimum electrical resistivity obtained at max filler loading in ICA