Colloidal Performance Materials
Zirconium Oxide in Mineral Spirits

NYACOL® ZrMin®

Nyacol ZrMin is a unique dispersion of nano-scale zirconium oxide suspended in mineral spirits. The typical particle size of the zirconia is 40–80 nm with a narrow distribution.

ZrMin can be used as a sintering control agent for precious metal paste formulations.

Nyacol ZrMin is supplied pre-dispersed and is ready to use.

TYPICAL PROPERTIES
ZrO₂, %: 30
Carrier: C₁₁–C₁₃ Isoparaffin
Particle Size, nm: 60

TEM  Magnification: 156000X
TEM  Magnification: 82800X
ZrMin TYPICAL PARTICLE SIZE DISTRIBUTION

ZrMin TYPICAL MLCC RESULTS

90 Ag/10Pd @ 50%

<table>
<thead>
<tr>
<th>No ZrMin</th>
<th>1% ZrMin</th>
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</thead>
<tbody>
<tr>
<td>Avg Cap</td>
<td>1058 pf</td>
</tr>
<tr>
<td>Cap Spread</td>
<td>12</td>
</tr>
<tr>
<td>Diel Const</td>
<td>91</td>
</tr>
<tr>
<td>DF</td>
<td>&lt;.02%</td>
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<tr>
<td>Delams</td>
<td>10%</td>
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</table>

TO ORDER MATERIAL OR FOR INFORMATION

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