## O S T E R M A N Infino NH-1021 LOTTE ADVANCED MATERIALS CO., LTD. - Polycarbonate + ABS

Thursday, September 29, 2016

| General Information                                |                      |                         |           |               |  |
|--|----------------------|-------------------------|-----------|---------------|--|
| General  |                      |                         |           |               |  |
| Material Status                                    | Commercial: Active   |                         |           |               |  |
| Availability                                       | Africa & Middle East | Europe                  |           | North Amorica |  |
|  | Asia Pacific         | Latin America           |           | North America |  |
| Features   | Flame Retardant      |                         |           |               |  |
| Uses   | Computer Components  |                         |           |               |  |
|  | ASTM & ISC           | Properties <sup>1</sup> |           |               |  |
| Physical   |                      | Nominal Value           | Unit      | Test Method   |  |
| Specific Gravity (Natural)                         |                      | 1.20                    |           | ASTM D792     |  |
| Density (Natural)                                  |                      | 1.20                    | g/cm³     | ISO 1183      |  |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)          |                      | 28                      | g/10 min  | ASTM D1238    |  |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)          |                      | 28                      | g/10 min  | ISO 1133      |  |
| Mechanical   |                      | Nominal Value           | Unit      | Test Method   |  |
| Tensile Strength <sup>2</sup> (Yield)              |                      | 9570                    | psi       | ASTM D638     |  |
| Tensile Stress (Yield)                             |                      | 9720                    | psi       | ISO 527-2/50  |  |
| Flexural Modulus <sup>3</sup>                      |                      | 377000                  | psi       | ASTM D790     |  |
| Flexural Modulus <sup>4</sup>                      |                      | 363000                  | psi       | ISO 178       |  |
| Flexural Strength <sup>3</sup>                     |                      | 13500                   | psi       | ASTM D790     |  |
| Flexural Stress <sup>4</sup>                       |                      | 13600                   | psi       | ISO 178       |  |
| Impact   |                      | Nominal Value           | Unit      | Test Method   |  |
| Charpy Notched Impact Strength <sup>5</sup> (73°F) |                      | 9.5                     | ft·lb/in² | ISO 179/1eA   |  |
| Notched Izod Impact (73°F, 0.125 in)               |                      | 5.4                     | ft·lb/in  | ASTM D256     |  |
| Notched Izod Impact Strength <sup>5</sup> (73°F)   |                      | 14                      | ft·lb/in² | ISO 180/1A    |  |
| Hardness   |                      | Nominal Value           | Unit      | Test Method   |  |
| Rockwell Hardness (R-Scale)                        |                      | 120                     |           | ASTM D785     |  |
| Rockwell Hardness (R-Scale)                        |                      | 120                     |           | ISO 2039-2    |  |
| Thermal  |                      | Nominal Value           | Unit      | Test Method   |  |
| Deflection Temperature Under Load                  | 1                    |                         |           | ASTM D648     |  |
| 66 psi, Unannealed, 0.252 in                       |                      | 207                     | °F        |               |  |
| Heat Deflection Temperature                        |                      |                         |           | ISO 75-2/B    |  |
| 66 psi, Unannealed, 0.157 in                       |                      | 205                     | °F        |               |  |
| Deflection Temperature Under Load                  | 1                    |                         |           | ASTM D648     |  |
| 264 psi, Unannealed, 0.252 in                      |                      | 192                     | °F        |               |  |
| Heat Deflection Temperature                        |                      |                         |           | ISO 75-2/A    |  |
| 264 psi, Unannealed, 0.157 in                      |                      | 185                     | °F        |               |  |
| Vicat Softening Temperature                        |                      |                         |           |               |  |
| -  |                      | 212                     |           | ISO 306/B50   |  |
| -  |                      | 219                     | °F        | ISO 306/B120  |  |

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| Flammability | Nominal Value Unit | Test Method |
|--------------|--------------------|-------------|
| Flame Rating |                    | UL 94       |
| 0.04 in      | V-1                |             |
| 0.12 in      | V-0                |             |

| Processing Information |               |      |  |  |
|------------------------|---------------|------|--|--|
| Injection              | Nominal Value | Unit |  |  |
| Drying Temperature     |               |      |  |  |
|                        | 176           | °F   |  |  |
| Desiccant Dryer        | 176           | °F   |  |  |
| Drying Time            |               |      |  |  |
|                        | 4.0 to 6.0    | hr   |  |  |
| Desiccant Dryer        | 2.0 to 4.0    | hr   |  |  |
| Suggested Max Moisture | < 0.050       | %    |  |  |
| Rear Temperature       | 428 to 446    | °F   |  |  |
| Middle Temperature     | 464 to 482    | °F   |  |  |
| Front Temperature      | 500 to 518    | °F   |  |  |
| Nozzle Temperature     | 518           | °F   |  |  |
| Mold Temperature       | 122 to 158    | °F   |  |  |
| Injection Pressure     | 14200         | psi  |  |  |
| Back Pressure          | 71.1 to 284   | psi  |  |  |
| Screw Speed            | 50 to 150     | rpm  |  |  |

## Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 in/min

<sup>3</sup> 0.11 in/min

<sup>4</sup> 0.079 in/min

<sup>5</sup> Thickness: 4mm

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