



# Stat-Tech™ Static Dissipative and Conductive Compounds

## Product Selection Guide North America

|   | Units      | AS-1000AS       | AS-13CF/000 Black   | CTX-1125 Natural   | AT-10CF/000         | LC-20NCF/000 V3 Natural | X ST9600-0020 ES Red | NY-20CF/000         | CTX-20SS 107/000 KEYTEC BLUE | NN-20CF/000 Black   |
|---|------------|-----------------|---------------------|--------------------|---------------------|-------------------------|----------------------|---------------------|------------------------------|---------------------|
| <b>Base Polymer</b>   |            | ABS             | ABS                 | ABS                | Acetal              | LCP                     | LCP                  | PA6                 | PA6/12                       | PA66                |
| <b>Structural Characteristic</b>                              |            | Non-structural  | Structural          | Structural         | Structural          | Structural              | Structural           | Structural          | Structural                   | Structural          |
| <b>Type</b>   |            | Anti-stat       | Conductive          | Shielding          | Conductive          | Shielding               | Shielding            | Conductive          | Conductive                   | Conductive          |
| <b>Cleanliness</b>  |            | Clean           | Sloughing           | Non-sloughing      | Sloughing           | Sloughing               | Non-Sloughing        | Sloughing           | Non-Sloughing                | Sloughing           |
| <b>Specific Gravity (ASTM D792)</b>                           | g/cc       | 1.06            | 1.11                | 1.33               | 1.43                | 1.52                    | 1.80                 | 1.22                | 1.32                         | 1.22                |
| <b>Mold Shrink, Linear-Flow (ASTM D955)</b>                   | %          | 0.4-0.6%        | 0.05 - 0.2%         | 0.1 - 0.2%         | 0.4 - 0.6%          | 0.05 - 0.1%             | 0.1 - 0.2%           | 0.02 - 0.1%         | 1.5 - 1.6%                   | 0.05 - 0.2%         |
| <b>Mold Shrink, Linear-Transverse (ASTM D955) (in/in)</b>     | %          | 0.4-0.6%        | 0.4 - 0.6%          | 1.7 - 1.8%         | 2.2 - 2.6%          | 1.0 - 1.2%              | 1.4 - 1.5%           | 1.2 - 1.4%          | 1.2 - 1.3%                   | 1.7 - 1.9%          |
| <b>Tensile Strength at Break (ASTM D638)</b>                  | psi        | 5070            | 11400               | 12490              | 9040                | 13600                   | 11800                | 23300               | 7850                         | 24900               |
| <b>Tensile Elongation at Break (ASTM D638)</b>                | %          | 12              | 1.5                 | 1.7                | 2.3                 | 1                       | 0.75                 | 2.4                 | 39                           | 2.2                 |
| <b>Flexural Modulus (ASTM D790)</b>                           | psi        | 299000          | 1250000             | 1042000            | 1070000             | 1770000                 | 1803000              | 1550000             | 398000                       | 1730000             |
| <b>Flexural Strength (ASTM D790)</b>                          | psi        | 8680            | 17800               | 17940              | 15500               | 21000                   | 16820                | 34900               | 12450                        | 33500               |
| <b>Notched Izod Impact (ASTM D256)</b>                        | ft-lbs/in  | 4               | 0.8                 | 0.795              | 0.7                 | 0.5                     | 0.42                 | 0.9                 | 0.97                         | 0.9                 |
| <b>DTUL @66psi - Unannealed (ASTM D648)</b>                   | °C         | 87C             | 102C                | 109.8              | 161C                | 260C                    | >245                 | 219C                | >245                         | 261C                |
| <b>DTUL @264psi - Unannealed (ASTM D648)</b>                  | °C         | 74C             | 97C                 | -                  | 141C                | 206C                    | -                    | 205C                | -                            | 250C                |
| <b>Surface Resistivity (ASTM D257)</b>                        | ohm/square | 1 E+11 - 1 E+12 | 1.00E+03 - 1.00E+05 | 1.0E+02- 9.99E+03  | 1.00E+02 - 1.00E+04 | 1.00E+02 - 1.00E+04     | 1.0E+02- 9.99E+03    | 1.00E+03 - 1.00E+05 | <1.00E+12                    | 1.00E+02 - 1.00E+04 |
| <b>Volume Resistivity (ASTM D257)</b>                         | ohm-cm     | 1 E+11 - 1 E+12 | 1.00E+03 - 1.00E+05 | 1.00E+02- 9.99E+03 | 1.00E+02 - 1.00E+04 | 1.00E+02 - 1.00E+04     | 1.00E+01- 9.99E+02   | 1.00E+03 - 1.00E+05 | <1.00E+12                    | 1.00E+02 - 1.00E+04 |
| <b>Charge Decay, (Mil-B-81705C), 12% RH, 5000 kV to 50 kV</b> | sec        | 0.34            | 0.002               | 0.002              | 0.003               | 0.002                   | 0.002                | 0.002               | 0.4                          | 0.003               |
| <b>Shielding Effectiveness 1GHz, 1/8" thickness</b>           | dB         | -               | -                   | 16                 | -                   | -                       | 40                   | -                   | NR                           | -                   |
| <b>Shielding Effectiveness 5GHz, 1/8" thickness</b>           | dB         | -               | -                   | 26                 | -                   | -                       | 55                   | -                   | 10                           | -                   |
| <b>Shielding Effectiveness 10GHz, 1/8" thickness</b>          | dB         | -               | -                   | 36                 | -                   | -                       | 61                   | -                   | 5                            | -                   |
| <b>Flammability - Internal Method</b>                         |            | -               | -                   | HB                 | -                   | -                       | -                    | -                   | -                            | -                   |
| <b>SAP code</b>   |            | EM0090244810    | EM0090543160        | EM0090607360       | EM0090297260        | EM1001559460            | EM1002418260         | EM0090573810        | EM0090551610                 | EM0090565810        |

|   | Units          | NN-40CF/000<br>NH FRV0 NATURAL | X ST6600-0041<br>ES NHFR Black | NN-40CF/000 FRV0<br>NATURAL | X ST6600-0040<br>ES FR Black | NN-20SS/000 BLACK     | PC-15CF/000 Black      | ST3200-0020 NHFR<br>BLACK | PI-05CF/000R Black     | PP-16CP/000-2 HI       |
|---|----------------|--------------------------------|--------------------------------|-----------------------------|------------------------------|-----------------------|------------------------|---------------------------|------------------------|------------------------|
| <b>Base Polymer</b>   |                | PA66                           | PA66                           | PA66                        | PA66                         | PA66                  | PC                     | PC/ABS                    | PEI                    | PP                     |
| <b>Structural Characteristic</b>                                  |                | Structural                     | Structural                     | Structural                  | Structural                   | Structural            | Structural             | Structural                | Non-Structural         | Non-Structural         |
| <b>Type</b>   |                | Shielding                      | Shielding                      | Shielding                   | Shielding                    | Conductive            | Conductive             | Shielding                 | Anti-Stat              | Conductive             |
| <b>Cleanliness</b>  |                | Sloughing                      | Sloughing                      | Sloughing                   | Sloughing                    | Non-Sloughing         | Sloughing              | Non-Sloughing             | Sloughing              | Sloughing              |
| <b>Specific Gravity<br/>(ASTM D792)</b>                           | g/cc           | 1.39                           | 1.38                           | 1.54                        | 1.22                         | 1.31                  | 1.26                   | 1.36                      | 1.3                    | 1.00                   |
| <b>Mold Shrink, Linear-Flow<br/>(ASTM D955)</b>                   | %              | 0.05 - 0.2%                    | 0.05 - 0.2%                    | 0.2 - 0.3%                  | 0.1 - 0.2%                   | 1.1 - 1.2%            | 0.1 - 0.2%             | 0.1 - 0.2%                | 0.1 - 0.2%             | 0.8 - 1.0%             |
| <b>Mold Shrink, Linear-Transverse<br/>(ASTM D955) (in/in)</b>     | %              | 2.3 - 2.4%                     | 2.1 - 2.2%                     | 1.6 - 1.7%                  | 1.7 - 1.8%                   | 2.1 - 2.2%            | 0.4 - 0.6%             | 1.1 - 1.2%                | 0.1 - 0.2%             | 0.8 - 1.0%             |
| <b>Tensile Strength at Break<br/>(ASTM D638)</b>                  | psi            | 29800                          | 26600                          | 30900                       | 24500                        | 9452                  | 16300                  | 14800                     | 18900                  | 3700                   |
| <b>Tensile Elongation at Break<br/>(ASTM D638)</b>                | %              | 1.3                            | 3.1                            | 1.1                         | 0.42                         | 11                    | 2.4                    | 1                         | 4.2                    | 20                     |
| <b>Flexural Modulus<br/>(ASTM D790)</b>                           | psi            | 3755000                        | 3828000                        | 3557000                     | 3407000                      | 454000                | 1240000                | 1162000                   | 864000                 | 245000                 |
| <b>Flexural Strength<br/>(ASTM D790)</b>                          | psi            | 48170                          | 48450                          | 49400                       | 46760                        | 16000                 | 25400                  | 21060                     | 30800                  | 6150                   |
| <b>Notched Izod Impact<br/>(ASTM D256)</b>                        | ft-lbs/<br>in  | 0.90                           | 1.06                           | 1.85                        | 1.29                         | 0.663                 | 1.3                    | 0.69                      | 1                      | 6                      |
| <b>DTUL @66psi - Unannealed<br/>(ASTM D648)</b>                   | °C             | >245                           | >245                           | >245                        | >245                         | 220.6                 | 145C                   | 94.25                     | 212C                   | 98C                    |
| <b>DTUL @264psi - Unannealed<br/>(ASTM D648)</b>                  | °C             | -                              | -                              | -                           | -                            | -                     | 140C                   | -                         | 206C                   | 50C                    |
| <b>Surface Resistivity<br/>(ASTM D257)</b>                        | ohm/<br>square | 1.0E+02-<br>9.99E+03           | 1.0E+02-<br>9.99E+03           | 1.0E+02-<br>9.99E+03        | 1.0E+02-<br>9.99E+03         | 1.0E+02-<br>9.99E+03  | 1.00E+02 -<br>1.00E+05 | 1.00E+05-<br>9.99E+06     | 1.00E+10 -<br>1.00E+12 | 1.00E+03 -<br>1.00E+05 |
| <b>Volume Resistivity<br/>(ASTM D257)</b>                         | ohm-cm         | 1.00E+01-<br>9.99E+02          | 1.00E+01-<br>9.99E+02          | 1.00E+02-<br>9.99E+03       | 1.00E+01-<br>9.99E+02        | 1.00E+04-<br>9.99E+05 | 1.00E+02 -<br>1.00E+05 | 1.00E+05-<br>9.99E+06     | 1.00E+10 -<br>1.00E+12 | 1.00E+03 -<br>1.00E+05 |
| <b>Charge Decay, (Mil-B-81705C),<br/>12% RH, 5000 kV to 50 kV</b> | sec            | 0.002                          | 0.002                          | 0.002                       | 0.002                        | 0.002                 | 0.003                  | 0.006                     | -                      | 0.002                  |
| <b>Shielding Effectiveness 1GHz,<br/>1/8" thickness</b>           | dB             | 32                             | 36                             | 35                          | 42                           | NR                    | -                      | 10                        | -                      | -                      |
| <b>Shielding Effectiveness 5GHz,<br/>1/8" thickness</b>           | dB             | 53                             | 54                             | 51                          | 54                           | 10                    | -                      | 15                        | -                      | -                      |
| <b>Shielding Effectiveness 10GHz,<br/>1/8" thickness</b>          | dB             | 70                             | 67                             | 64                          | 68                           | 11                    | -                      | 22                        | -                      | -                      |
| <b>Flammability - Internal Method</b>                             |                | V0                             | V1                             | V0                          | V0                           | -                     | -                      | V0                        | -                      | -                      |
| <b>SAP code</b>   |                | EM1001303610                   | EM1001993410                   | EM1001061860                | EM1002141210                 | EM1001170930          | EM0090584710           | EM1002064860              | EM1000850710           | EM1001034760           |

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