

## TECHNICAL DATA SHEET

### Shuman Compound:

Polycarbonate SP910 Utility Black, SP920 Black, SP980 Grey, SP930 White, and Custom Colors

### Offers this combination of properties:

UL recognized, Good impact strength, Easy processability, Good surface gloss, Good heat resistance, Excellent weatherability, Excellent color stability, Self-extinguishing

## TYPICAL PROPERTIES

| <u>MECHANICAL PROPERTIES</u>  | <u>VALUE</u>                        | <u>UNITS</u>                           | <u>TEST METHODS</u> |
|---|-------------------------------------|--|---------------------|
| Izod Impact Strength (Notched, 1/8" Thick Specimen)   | 12                                  | FT-LBS/IN                              | ASTM D-256          |
| Rockwell Hardness   | 70                                  | M                                      | ASTM D-785          |
| Tensile Strength  | 9500                                | PSI                                    | ASTM D-638          |
| <u>THERMAL PROPERTIES</u>   |                                     |  |                     |
| Heat Deflection Temperature @ 264 PSI   | 262                                 | deg. F                                 | ASTM D-648          |
| Vicat Softening Temperature   | 310                                 | deg. F                                 | ASTM D-1525         |
| <u>FLAME RETARDANT PROPERTIES</u>   |                                     |  |                     |
| Flame Class Rating 0.062" (1.57 mm) Thick Specimen  | V2                                  |  | UL 94               |
| Flame Class Rating, Weather Exposure<br>0.062" (1.57 mm) Thick Specimen   | *F1<br>V2                           |  | UL 746 C            |
| *F1- Suitable for outdoor use with respect to exposure to ultraviolet light, water exposure, and immersion in accordance with UL 746 C. |                                     |  |                     |
| <u>OTHER PROPERTIES</u>   |                                     |  |                     |
| Specific Gravity  | 1.2                                 |  | ASTM D-792          |
| Melt Flow Rate  | 10 (+/-2)<br>15 (+/-2)<br>20 (+/-2) | GM/10 MIN.<br>GM/10 MIN.<br>GM/10 MIN. | ASTM D-1238         |

## SUGGESTED PROCESSING CONDITIONS

| <u>DRYING CONDITIONS:</u>  | <u>TEMPERATURE (deg. F)</u> |             | <u>TIME (HOURS)</u> |             |
|--|-----------------------------|-------------|---------------------|-------------|
|  | <u>MIN.</u>                 | <u>MAX.</u> | <u>MIN.</u>         | <u>MAX.</u> |
| Dehumidifying Dryer  | 250                         | 260         | 2-3                 | 24          |
| Tray Dryer    NOTE: Depth of granules in tray dryer<br>should not exceed 1 in. (25.4 mm) | 250                         | 260         | 4-6                 | 24          |

### TEMPERATURE CONDITIONS:

510-550F

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