

**VALIDATING FORM**

|                      |                           |
|----------------------|---------------------------|
| Product Name         | 1000CW152                 |
| Material Number      | 11100                     |
| Material Description | RSN CLR MKRN 2856-550042/ |
| Date Created         | 08/14/2018                |

| Standardization Info     | Min.    | Mid.  | Max.    |
|--------------------------|---------|-------|---------|
| Certified Cycle Time :   | 28.50   | 30.0  | 30.00   |
| Final Part(s) Weight (g) | 217.410 | 218.5 | 219.590 |

|                        |          |       |
|------------------------|----------|-------|
| Tool Number            | 1000CC#2 |       |
| Resin/Additive Number  |          |       |
| Resin/Additive Descrip |          |       |
|                        |          |       |
|                        | Std.     | Cert. |
|                        |          |       |
|                        |          |       |

|                  |  |
|------------------|--|
| Colorant Number  |  |
| Colorant Descrip |  |
| Color Percentage |  |
| MacGuire Setting |  |

ALL DATA BELOW IS REFERENCE ONLY AND SETTINGS CAN BE ADJUSTED IF REQUIRED IN ORDER TO MEET PRODUCT STANDARDS

| Barrel Temperatures       | Set   | Mold Cooling Temps       | Set   | Reference Data  | Set   | Machine Number: 46 |       |       |       |       |  |
|---------------------------|-------|--------------------------|-------|---|-------|--------------------|-------|-------|-------|-------|--|
| Nozzle Tip %              | 120v  | Mold Gate Temp °F        | 200   | Fill Only Time  | 5.60  |                    |       |       |       |       |  |
| Nozzle Body %             | 80v   | Mold Fixed ½ °F          | 200   | Fill Only Weight  | 214.0 |                    |       |       |       |       |  |
| Adapter (NH)              | 600   | Mold Moving ½ °F         | 200   | Steel Temp. "A" Side °F   | 185   |                    |       |       |       |       |  |
| Barrel Front (H4)         | 610   | Stripper or other °F     |       | Steel Temp. "B" Side °F   | 185   |                    |       |       |       |       |  |
| Barrel Center (H3)        | 620   | Nozzle Tip Information   |       | Melt Temp. °F   | 605   |                    |       |       |       |       |  |
| Barrel Center (H2)        | 620   | Type GP, FT, NYL         | GP    | Valve Gate  | VG1   | VG2                | VG3   | VG4   |       |       |  |
| Barrel Rear (H1)          | 600   | Length OAL (in.)         | 2 3/4 | Open Delay  |       |                    |       |       |       |       |  |
|                           |       | Orifice Size (in.)       | 7/32  | Open Time   |       |                    |       |       |       |       |  |
|                           |       | Nozzle Body Information  |       | Adv Cls Tm  |       |                    |       |       |       |       |  |
|                           |       | Length OAL (in.)         | 6.00  | Close Delay   |       |                    |       |       |       |       |  |
| Injection Profile         | Set   | Recovery & Clamp Profile |       | Close Time  |       |                    |       |       |       |       |  |
| Shot size in.             | 3.00  | PrePullbk(PB2)speed      |       | Inj HP End  |       |                    |       |       |       |       |  |
| Injection Press 1         | 20.00 | PrePullbk before stro    |       | Transfer  |       |                    |       |       |       |       |  |
| Injection Press 2         | 99.00 | Screw Start Delay        |       | Hot Tip Controller  | Box 1 | Box 2              | Box 3 | Box 4 | Box 5 | Box 6 |  |
| Injection Press 3         |       | Screw Chg Position 1     | 2.00  | Position 1 Gate/HB/Man  | 550   |                    |       |       |       |       |  |
| Injection Press 4         |       | Screw Chg Position 2     |       | Position 2 Gate/HB/Man  |       |                    |       |       |       |       |  |
| Injection Press 5         |       | Screw recovery % 1       | 35.00 | Position 3 Gate/HB/Man  |       |                    |       |       |       |       |  |
| Injection Velocity 1      | 3.00  | Screw recovery % 2       | 35.00 | Position 4 Gate/HB/Man  |       |                    |       |       |       |       |  |
| Injection Velocity 2      | 30.00 | Back Pressure 1          | 65.00 | Position 5 Gate/HB/Man  |       |                    |       |       |       |       |  |
| Injection Velocity 3      |       | Back Pressure 2          | 45.00 | Position 6 Gate/HB/Man  |       |                    |       |       |       |       |  |
| Injection Velocity 4      |       | PostPullback(PB1)speed   | 50.00 | Start-Up Instructions / Comments  |       |                    |       |       |       |       |  |
| Injection Velocity 5      |       | Post Pullback stroke in. | 0.10  |   |       |                    |       |       |       |       |  |
| Injection Change Pos 1    | 2.90  | Screw positon after SB   | 3.10  | Must Polish core with #9 diamond compound before each run to prevent sticking |       |                    |       |       |       |       |  |
| Injection Change Pos 2    |       | Screw recovery time      | 8.50  |   |       |                    |       |       |       |       |  |
| Injection Change Pos 3    |       | Cooling time secs        | 14.00 |   |       |                    |       |       |       |       |  |
| Injection Change Pos 4    |       | Mold protect press       | 70.00 |   |       |                    |       |       |       |       |  |
| Trans mode lvsh/lps       | IVSH  | Mold protect time        | 5.00  |   |       |                    |       |       |       |       |  |
| Trans pos in.             | 0.50  | Clamp tonnage            | 350   |   |       |                    |       |       |       |       |  |
| lps PSI                   | 2000  | Injection pressure gauge | 2000  |   |       |                    |       |       |       |       |  |
| Inj PSI at transfer       | 1900  | Holding 1 gauge psi      | 1300  |   |       |                    |       |       |       |       |  |
| Injection time act. secs. | 5.55  | Holding 2 gauge psi      | 1200  |   |       |                    |       |       |       |       |  |
| Hold Press 1 %            | 60    | Back pressure gauge psi  | 250   |   |       |                    |       |       |       |       |  |
| Hold Press 2 %            | 55    | Back pressure gauge psi  | 200   |   |       |                    |       |       |       |       |  |
| Hold Time 1               | 0.50  | Final Cushion            | 0.35  |   |       |                    |       |       |       |       |  |
| Hold Time 2               |       |                          |       |   |       |                    |       |       |       |       |  |
| Injection Hold Time       | 10.00 |                          |       |   |       |                    |       |       |       |       |  |