

# QUEBEC METAL POWDERS LIMITED

## SPECIFICATION

(temporary)

**GRADE:**            **ATOMET DB49**

| PROPERTIES  | SPECIFICATIONS   |                | METHOD      |
|---|------------------|----------------|-------------|
|   | Min.             | Max.           |             |
| Apparent density, (g/cm <sup>3</sup> )                              | 2.97             | 3.12           | ISO 3923-1  |
| Flow, (s / 50g)   | ----             | 30             | ISO 4490    |
| <b><u>PARTICLE SIZE ANALYSIS OF STEEL POWDER, (% BY WEIGHT)</u></b> |                  |                |             |
|   | <u>U.S. MESH</u> | <u>MICRONS</u> |             |
|   | +60              | +250           | ----- Trace |
|   | -60 +100         | -250 +150      | ----- 18.0  |
|   | -325             | -45            | 10.0 30.0   |
| <b><u>CHEMICAL ANALYSIS OF STEEL POWDER, (% BY WEIGHT)</u></b>      |                  |                |             |
| Carbon  | -----            | 0.010          | ASTM E 1019 |
| Oxygen  | -----            | 0.15           | ASTM E 1019 |
| Sulphur   | -----            | 0.014          | ASTM E 1019 |
| Copper  | 1.80             | 2.20           | ASTM E 322  |
| Manganese   | 0.10             | 0.18           | ASTM E 322  |
| Molybdenum  | 1.35             | 1.65           | ASTM E 322  |
| Nickel  | 3.60             | 4.40           | ASTM E 322  |
| <b><u>COMPACTING PROPERTIES, (1)</u></b>                            |                  |                |             |
| Green density at 600 MPa, (g/cc)                                    | 7.0              | -----          | ISO 3927    |
| Green strength at 7,0 g/cc, (MPa)                                   | 10.0             | -----          | ISO 3995    |

### **NOTES:**

**(1) Rectangular bars as per MPIF STD # 15. Test mix: Fe - 0.6 C - 0.75 ZnSt.**

Spec/EV/general metric/db48met

Rev.:00

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