# Minnesota™ Injection Molded Plastic Letters Specifications

### Part I – General

#### 1.1 **Scope**

A. Furnish letters and hardware necessary to install Minnesota ™ injection-molded plastic letters shown on drawings and herein specified.

#### 1.2 Submittals

- A. Manufacturer's illustrated product literature and specifications.
- B. Installation instructions

### 1.3 Quality Assurance

- A. Manufacturer to have a minimum of 20 years experience in manufacturing letters.
- B. All letters to be manufactured by one manufacturer.

#### Part II - Products

### 2.1 Acceptable Manufacturer or Manufacturer's Representative

A. Gemini Incorporated

103 Mensing Way

Cannon Falls, MN 55009

Phone: 800-538-8377 or 507-263-3957 Fax: 800-421-1256 or 507-263-4887

Email: sales@signletters.com Web: www.signletters.com

### 2.2 Materials (Wood and cotton-based plastic)

A. Cellulose Acetate Butyrate (C.A.B.)

# 2.3 CAB has the following specific characteristics (sheet used for formed letters is approximately .143" thick)

- 1. A specific heat of about 0.35.
- 2. A heat of combustion of approximately 10,400 BTU per pound (2.42 x 107 J/Kg).
- 3. An auto-ignition temperature of about 880° F (470°C).
- 4. UL94 Flame Class: 94HB
- 5. Burn rates for sheet, as determined in testing under ASTM Test Method D 635:
  - Approximately 1.0 in/min (2.6 cm/min) for .125" (3.18 mm) thick material.
  - Approximately 0.8 in/min (2.1 cm/min) for .150" (3.81 mm) thick material.

### 2.4 Mounting Hardware

A. Minnesota™ injection molded plastic letters have plain, stud, pad, combination, or combination all for mounting options.

B. All Minnesota™ injection molded plastic letters use 3/16" aluminum studs

### 2.5 Manufacture

A. Letters shall be made of cellulose ac	etate butyrate.		
B. Letter shall be	letterstyle,	color, and shall be	inches
high, as indicated on the drawings.			
C. Mounting shall be	and a mountin	g template designating stud locations is/is	s not
required for mounting on a	surface		

#### Part III - Execution

# 3.1 Installation

A. A qualified installer shall install Minnesota™ injection molded plastic letters.

#### 3.2 Warranty

A. Letters should be guaranteed for the life of the business against defects.