

**TRAFFIC CONTROL DEVICES
MANUAL FOR WORK ZONES**

Section:

SIGNS

Subject:

MANUFACTURING SPECIFICATIONS

1. SIGN SUBSTRATE

➤ Plywood (1.27 cm)

All 1.27 cm plywood including splicing material will be medium density, overlay plywood (good both sides) and meet plywood manufacturing specifications CSA 0151.

➤ Plywood (1.9 cm)

All 1.9 cm sign blanks will be 240 cm x 24 cm, good one side fir plywood planks and meet manufacturing specifications CSA 0121.

➤ Aluminum (Flat type)

Aluminum sheet alloy will be Alcan S-67 sign sheet or approved equivalent. Thickness for signs 1.44 m² or less will be a minimum of 1.6 mm. Thickness for signs greater than 1.44 m² will be a minimum of 2.0 mm. Mechanical properties, minimum ultimate tensile strength of 2672 kg/cm², a typical yield strength of 2600 kg/cm²

2. SIGN FACING

All facing materials used are to be approved by the ministry. Sign facing colours to meet ATMP 4946-09 and retain the colour for the warranted life of the material.

➤ ASTM D4956 - 09 - Type IV (High Intensity Prismatic)

To meet reflective as per Specification

Board Standard ASTM D4956-09, Standard for:
Marking Material, Retroreflective Enclosed Lens,
Adhesive Backing.

(High Intensity)



Section:

SIGNS

Subject:

MANUFACTURING SPECIFICATIONS

➤ ASTM D4956 - 09 - Type IX

Presently there are no government specifications for this product.

Very High Intensity
Reflective Sheeting



➤ ASTM D4956 - 09 - Type XI

Presently there are no government specifications for this product.

Very High Intensity
Microprismatic Cube
Reflective Sheeting



3. PLYWOOD SUBSTRATE - FABRICATION

Fabrication of all plywood sign blanks will be accomplished in uniform and workmanlike manner. All possible fabrication, including cutting, drilling of holes and edge routing should be completed prior to application of prime and finishing paint coats, sign facing and/or cut-out letters.

➤ Cleaning

Prior to applying the sign facing or painting, the surface of the sign blank will be buffed lightly and wiped clean with lint free cloth to remove any trace of grease, wax or dirt.

➤ Edge Treatment

The edge of the plywood sign blank will receive a waterproof and weatherproof edge treatment.

➤ Application of Sheeting

Application of sheeting to conform to instructions issued by the sheeting supplier. Sign sheeting 120 cm or less on the longest side will not contain any splicing. Sign sheeting greater than 120 cm will be allowed one vertical lap splice.

➤ Legend Screened

Unless sheeting suppliers' specifications state otherwise, all signs utilizing the reverse screening method will have one coat of clear coat applied to the front side of the finished sign after the reflective sheeting has been placed on the plywood blank

Section:

SIGNS

Subject:

MANUFACTURING SPECIFICATIONS

➤ Cut-out Letters

All cut-out letters, digits and symbols will be in one piece and free of joints, splices and patches.

➤ Clear Coat

Unless sheeting suppliers' specifications state otherwise, clear top coat will be applied as an edge seal on all legends, border and sign edges.

4. ALUMINUM SUBSTRATE - FABRICATION

Fabrication of all metal sign blanks will be accomplished in a uniform and workmanlike manner. All fabrication including shearing, cutting and punching of holes will be completed prior to metal degreasing and application of materials. Sign blanks, will be cut to size and shape and free of buckles, warps, dents, cockles, burrs and defects. The surface of all sign blanks will be flat. The edges of the sign blank will be smooth and free of sharp projections.

➤ Cleaning

Aluminum blanks will be degreased and etched, including all necessary rinse operations in accordance with the sign facing manufacturer's specifications.

➤ Sign Facing

Application of the sheeting to conform to instructions issued by the supplier. Sign sheeting 120 cm or less on the longest side will not contain any splicing. Sign sheeting greater than 120 cm will be allowed one vertical lap splice.

➤ Legend Screened

Unless sheeting suppliers' specifications state otherwise, all signs utilizing the reverse screening method will have one coat of clear coat applied to the front side of the finished sign after the reflective sheeting has been placed on the metal blank.

➤ Cut -Out Letters

All cut-out letters, digits and symbols will be in one piece and will free of joints, splices and patches.

➤ Clear Coat

Unless sheeting suppliers' specifications state otherwise, clear topcoat will be applied as an edge seal on all legend, border and sign edges.

Section:

SIGNS

Subject:

MANUFACTURING SPECIFICATIONS

5. Sign Specifications

Spec	Materials	Background	Level	Legend	Level
140	1.27 cm medium plywood	Reflectorized	2	Non-reflective (black)	
145	1.27 cm medium plywood	Reflectorized	2	Screened	
146	1.27 cm medium plywood	Reflectorized	1	Screened	
155	1.90 cm G1S plywood	Reflectorized	2	Reflectorized	
156	1.90 cm G1S plywood	Reflectorized	1	Reflectorized	
185	1.27 cm medium plywood	Reflectorized	DG	Screened	
210	Aluminum flat type	Reflectorized	2	Screened	
240	Aluminum flat type	Reflectorized	1	Screened	
245A	Aluminum flat type	Reflectorized	DG	Reflectorized	DG
245S	Aluminum flat type	Reflectorized	DG	Screened	
246A	Aluminum flat type	Reflectorized	FDG	Reflectorized	FDG
246S	Aluminum flat type	Reflectorized	FDG	Screened	
275	Aluminum flat type	Reflectorized	2	Reflectorized	2
276	Aluminum flat type	Reflectorized	1	Reflectorized	1
280	Aluminum flat type	Reflectorized	2	Screened	
281	Aluminum flat type	Reflectorized	1	Screened	
335	Aluminum flat type	Reflectorized	DG	Reflectorized	
310	Aluminum flat type	Reflectorized outer edge	2	Fluorescent vinyl centre	
340	Aluminum handle - 30 cm				
345	Aluminum handle - 150 cm				
580	Decal	Vinyl Film		Screened	
620	Decal	Reflectorized	2	Reflectorized	2
1000	Roll-up flexible signs, impact resistant and UV stabilized	Reflectorized	2	Screened	
1050	Roll-up flexible signs, impact resistant and UV stabilized	Reflectorized	1	Screened	