



Metal Panel System Compliance

January 19, 2012

Volume 1, Issue 1

Is your contractor compliant?



Mitsubishi Plastics Composites America, Inc.

GM Image program requirements

SECTION 07 42 13 METAL WALL PANELS

A. Performance Requirements:

Provide composite metal panels which have been manufactured, fabricated and installed to withstand loads from deflection and thermal movement and to maintain performance criteria stated by manufacturer without defects, damage or failure.

B. Quality Assurance Submittals: Submit the following:

Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.

C. Qualifications:

Installer Qualifications: Installer experienced in performing work of this section who has specialized in the installation of work similar to that required for this project.

Facility Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Requirements
O. Exterior						
Entry Element	●	●	●	●	●	Blue ACM entry element with hairline brushed frame around opening and roof canopy hanging in opening. Preferably this element should be integral to the building wall or overhang canopy, but it may be freestanding if the site and/or existing structure requires. Dimensions and proportions must be as specified in Design Intent Document (DID) Section 4: Resources: <i>Detailed Drawings and Space Planning Examples.</i>
ACM Construction	●	●	●	●	●	All ACM (both on the facade and on the entry element) must be either a rout and return or a rain screen system with 1/2" to 3/4" wide reveals. Dry joint systems are preferred. Batten, molding or field-cut 'sheets and stick' systems are not acceptable.

ACM metal panel also known as Aluminum Composite Material has been utilized for over 20 years as an architectural wall and ceiling finish. With this growth in product utilization also comes the need for qualified fabricators and skilled craftsman that can not only provide aesthetically pleasing installation but must also meet stringent manufacture warranty requirements, architectural specification requirements,

and local building codes., and if your project is part of a corporate program where individual dealership owners are counting on being reimbursed for their remodel cost than they must also meet the corporate requirements.

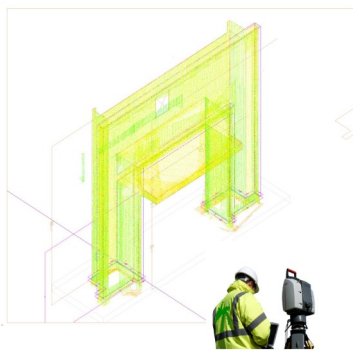
So what are these requirements and how do you know that you have met them all so that you can reassure yourself your not going to get stuck with the bill.

Before committing yourself to what seems like an almost

unbelievable low bid contract, make sure you have review your requirements and talked to local , compliant fabricators that are experienced and recommended by the product manufacturer.

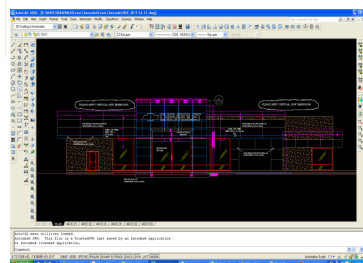


The Carvist Process — Fabricated under controlled conditions



Precision 3D Survey

Computer Aided Drafting



CNC Cut for accuracy and finish warranty protection

Capacity for multiple Large projects

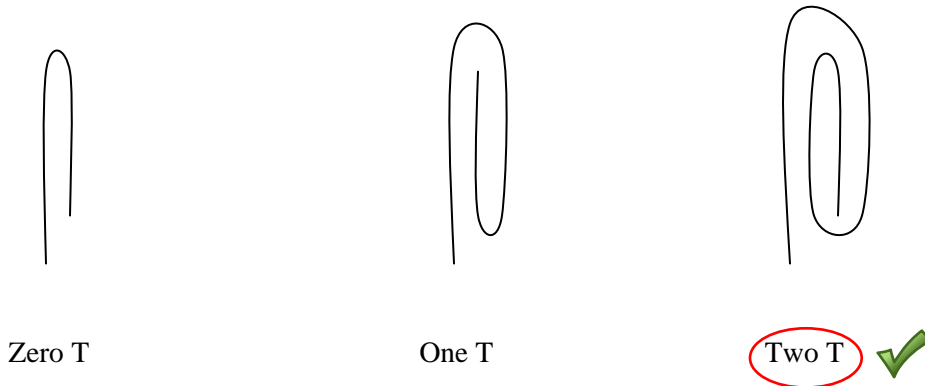


TECHNICAL BULLETIN
Mitsubishi Chemical America, Inc.
6/14/04

Correct Routing Depth

In routing the ALPOLIC panels special care must be taken to rout to the correct depth. The depth of the rout controls the radius of the bend when the return is made. This radius has a significant impact on the panels paint finish. If the rout is too deep the radius will be too small and the edge of the return will be sharp. This sharp edge can lead to paint cracking and a paint failure along the edge.

Paint manufacturers rate a paint's ability to bend using a test called the T bend test (ASTM D4145). Using a piece of the coated metal a bend is made so the metal is turned back on itself, this is a zero T (thickness) bend. The edge is observed for cracking. The metal is bent again so that now there are the two outside strips with one thickness of the metal in between (one T). If this is repeated so there are two thicknesses of metal between, it is referred to a two T.



As the T Bend number goes up the radius of the top bend becomes larger. The Fluorocarbon paint system is warranted by the paint manufacturer for two T. The more core material that is left behind the larger the radius once the return is bent. To ensure a two T radius a minimum of 0.008 to 0.016 inches or 0.2 to 0.4 mm of core material should be left. **If the panels are over routed and the resulting radius does not meet the two T requirement, the paint warranty is voided.**

To ensure uniform and correct routing depth it is important to ensure the support material for the panel is level, flat and without voids. Resurfacing the support material on a regular basis is recommended.

A properly routed panel will have 0.008 to 0.016 inches of the polyethylene core remaining

