

## North Carolina Code Compliance Inspection Checklist - Drywall Products (NC 2009 references ASTM C645 - 04)



| Requirement  | Code Reference  | Specification Requirements   | How to Inspect  | Misc.  | Compliant   |
|--|---|--|---|--|---|
| <b>Protective Coating</b>                                | NC 2009 - Table 2506.2 which then directs the user to ASTM C645-04  | 4.2 Members shall have a protective coating conforming to Specification A 653/A 653M-04, G40 minimum or shall have a protective coating with an equivalent corrosion resistance.   | <ul style="list-style-type: none"> <li>* Request mfgs. certification</li> <li>* Copper sulfate test to verify use of hot dipped galvanized coating</li> <li>* Elcometer test to measure proper thickness of coating</li> </ul>                          | Copper sulfate reacts black with hot dipped galvanize. Reacts greenish brown with galvanized.                                      | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
| <b>Base Metal Thickness</b>                              | NC 2009 - Table 2506.2 which then directs the user to ASTM C645-04  | 4.3 Members shall be manufactured from steel having a minimum thickness, individual measurement of 0.0179 in. before application of protective coating...or  | * Measure with micrometer   | Thickness with G40 coating = 0.0187"   | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
|  |   | 5.1 Studs and rigid furring channels shall have a configuration and steel thickness such that the system in which they are used will carry the design transverse loads without exceeding either the allowable stress of the steel or the allowable design deflection...The manufacturer shall supply sufficient data for calculating design performance. | <ul style="list-style-type: none"> <li>* Check manufacturer's literature</li> <li>* Check marking on the members</li> <li>* Request manufacturer's certification</li> <li>* Verify proper minimum thickness based on independent test report</li> </ul> | If less than C645 minimum requirements manufacturer shall provide an independent test report to verify required minimum thickness. | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
| <b>Marking &amp; Identification (Individual Members)</b> | NC 2009 - Table 2506.2 which then directs the user to ASTM C645-04  | 14.1...individual members shall have a legible label, stencil, or embossment, at a maximum distance of 48 in. on center, on the member, with the following minimum information:  | 48" on center repeated pattern  |  | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
|  |   | 14.2.1 The rollformer's identification (that is, name, logo or initials).  | Manufacturer's name or logo   |  | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
|  |   | 14.2.2 The minimum steel thickness, in mills or inches, exclusive of protective coating.   | Minimum steel thickness exclusive of coating  | Minimum should be 0.0179". If G40 coating overall thickness should be 0.0187"  | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
|  |   | 14.2.3 The minimum yield strength in ksi if other than 33 ksi.   | Minimum yield strength (assumed 33 ksi if not marked)   |  | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
|  |   | 14.2.4 The minimum protective coating weight, G-XX, if other than as specified in Section 4. (G40 or equivalent corrosion resistance).   | Minimum coating weight (assumed G40 or equivalent if not marked)  |  | <input type="checkbox"/> yes<br><input type="checkbox"/> no |
| <b>Yield Strength</b>                                    | NC 2009 - Section 2210.4 which directs the user to the AISI - General Provisions which in turn points to ASTM A1003-02a | 8.1 The mechanical properties of the steel sheet shall conform to the requirements shown in Table 2.<br>Table 2 requires type "NS" studs (Non Structural) to have a minimum 33 ksi. There are no elongation (ductility) requirements.  | <ul style="list-style-type: none"> <li>* Check manufacturer's literature</li> <li>* Check marking on the members</li> <li>* Request manufacturer's certification</li> </ul>   | * Only means to verify is through a destructive test ASTM A370   | <input type="checkbox"/> yes<br><input type="checkbox"/> no |

Notes: 1) Check project specifications - They may have newer versions of ASTM specifications and / or stricter requirements.