



# THE MAGNI GROUP, INC.

390 PARK STREET SUITE 300 BIRMINGHAM, MICHIGAN 48009-3417  
(248) 647-4500 (248) 647-7506 FAX

## Magni 599 and Treated Lumber Compatibility Update September, 2007

Magni 599-coated fasteners have been successfully used in treated lumber for several years. As a leader in this market, it is important to Magni that we understand the ramifications of the recent changes to ACQ, CA, and other environmentally friendly wood treatments.

Over the past three years, Magni has been an active participant in the development of corrosion tests that are unique to the building industry. These tests have been developed to simulate long-term “real world” performance of fasteners and connectors installed in treated lumber. The building industry will soon adopt these tests as consensus standards for coating approval.

Magni 599 consistently excels when exposed to the corrosion tests that will be used as the standards for approval. Figure 1 (see below) shows Magni 599-coated screws fastened into untreated lumber, CCA-treated lumber, and two versions of ACQ-treated lumber. These boards were exposed to an atmospheric cycle test for three months and Magni 599 completed the testing with no visible corrosion in any of the four boards.



Figure 1 - Magni 599 after 2160 hours in MSU/Osmose corrosion test

The corrosion test was run by Michigan State University in conjunction with Osmose, Inc., a leader in the wood preservative market. The MSU/Osmose protocol is the basis for the development of the new building code corrosion tests.

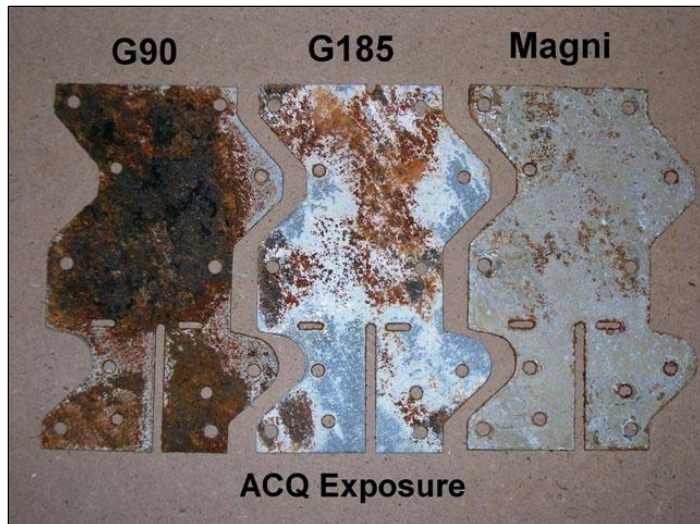


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Magni 599 consistently outperforms the finishes currently approved and recommended by building codes and standards.

Figure 2 (at right) shows flat coupons galvanized to G90 and G185 thicknesses compared to a Magni 599-coated coupon. These three coupons were fastened flat in direct contact with ACQ-treated lumber and exposed to the MSU/Osmose cycle test for four months. The Magni 599-coated coupon exhibited only slight cosmetic corrosion. The galvanized coupons (without Magni topcoat) corroded to the base metal, yielding red rust and significant base metal damage (steel pitting) – the precursors to potential structural failure.



*Figure 2 - Magni 599-coated coupon compared to HDG coupons after 2880 hours in MSU/Osmose corrosion test*



*Figure 3 - Magni 599-coated nails compared to HDG nails after 2880 hours in MSU/Osmose corrosion test*

Figure 3 (at left) compares nails coated with Magni 599 to nails galvanized to ASTM A153 thickness. These nails were driven into ACQ-treated lumber and were exposed to the MSU/Osmose cycle test for four months. The Magni 599 coating withstands the severe installation damage that is common when nails are driven into lumber. Magni 599 provides superior cosmetic corrosion protection (less red rust) and minimal base metal damage (core diameter loss) when compared with ASTM A153 galvanized nails.



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The ICC (International Code Council) is developing a test protocol for products used in the building industry. Once the ICC protocol exists, Magni will submit the Magni 599 coating system for formal approval. Until that time, we will continue to test in-house and through third-party laboratories (like MSU) to verify performance capabilities.

Magni's philosophy is to always look forward to the next challenge. Magni's latest R&D effort is focused on maximizing the performance of our chrome-free coating systems for the construction fastener market. New RoHS and Green Building initiatives are driving change in the construction fastener market. The newest version of Magni 599 will exceed the corrosion and environmental compliance standards that are so important to this market.

Magni 599 is a coating system that provides:

- An optimum combination of cost-competitiveness and corrosion resistance – better protection in treated lumber than low-cost finishes like HDG and much lower cost than stainless steel while not sacrificing long-term protection
- A wide range of colors - custom color-matching is available if necessary
- Integrated coating lubricity to aid in easy installation
- Finish durability – Magni 599 maintains adhesion to the substrate even after multiple installation/removal cycles
- Worldwide availability from high-quality, cost-conscious metal finishers

Please contact Magni if you need any more information about Magni 599 or any of our other outstanding corrosion protective coating systems.

*Magni 599 is available from metal finishers in North America, South America, Europe and Asia - please visit [www.themagnigroup.com](http://www.themagnigroup.com) for specific locations.*