

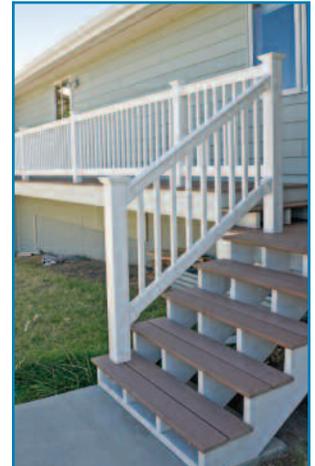
## Additive solutions for wood-fiber composites

### Meeting challenges with experience and technology

Success in manufacturing wood-fiber composites depends on producing products whose life-cycle costs and benefits outweigh those of their natural wood counterparts. Over the years, the industry has made great strides, but challenges remain. Composite lumber is not as stiff as natural wood, and its color can shift as it weathers. In some composite products, wood fillers can rot, and surfaces are susceptible to mold and mildew.

Barring breakthroughs either in polymers or in their prices, the most significant improvements to the performance of wood-fiber composites and to their cost efficiency can be realized through effective use of advanced additive technologies.

ADDCOMP North America is positioned to provide manufacturers with the benefits of its thorough understanding of polymer additive technology and its portfolio of additive products for the enhancement of wood-fiber composites.



### PRIEX® coupling agents improve structural properties as much as 30%

PRIEX® coupling agents feature a maleic anhydride (MAH) group grafted onto a backbone of polyethylene or polypropylene. They enhance the strength of wood-plastic composites by coupling the PP matrix to the wood component. The resulting material exhibits both higher flexural modulus as well as greater rupture strength.

PRIEX additives also help the polymer matrix coat the wood particles, which reduces moisture absorption, delaying the onset and mitigating the effects of moisture-related issues, such as rot. Optimizing the combination of improvements depends on the choice of PRIEX agent and on the configuration of the composite itself – on the characteristics of the polymer matrix as well as the percentage of wood content.

### Complementary additive systems

ADDCOMP's ADD-UV™ products provide excellent UV stabilization, which is important in extending the life of wood composites in exterior applications.

Products in the ADD-AO™ line of anti-oxidant additives provide temperature stability, protecting composites during processing as well as improving heat-aging in the field. Anti-microbial additive solutions are used by our customers to combat rot, mold, and mildew. Biostats can help maintain surface characteristics of composite lumber. And biocide additives can work to eliminate attacking microbes.

In addition, there are ADDCOMP additives that contribute to reducing the life-cycle costs of wood-fiber composites by helping control process issues. We offer additives that reduce die buildup and minimize die sticking to enhance extrusion efficiency. Other grades are designed to improve other aspects of the production process.

ADD-AF™	ADD-CLEAN™	ADD-RESIST™	anti-biologicals	cleaning agents	odor reducers
ADD-AO™	ADD-DS™	ADD-SLIP™	anti-blocking agents	compatibilizers	oil and water
ADD-AS™	ADD-FR™	ADD-UV™	anti-fogging agents	coupling agents	repellents
ADD-BA™	ADD-MAX®	ADD-VANCE®	anti-oxidants	desiccants	plasticizers
ADD-BLACK™	ADD-NU™	PRIEX®	anti-static agents	flame retardants	slip agents
ADD-CL™			blowing agents	nucleating agents	UV stabilizers
			clarifying agents		

## Additive solutions for wood-fiber composites

### System delivery alternatives

ADDCOMP produces a comprehensive range of polymer additive solutions for composite materials, for compounds, or for single-species resins. We can provide them as individual components or in a custom formulation of multiple additives.

Where liquid additives are appropriate, a masterbatch is supplied as pellets featuring high concentrations of additive chemistry in a matrix of select polymer. Where an additive system consists of compatible dry components, we can supply the formulation in compacted-powder form or as a powder blend. In every case, an ADDCOMP product will be configured for ease and accuracy of metering and for process flexibility in dosing.

### History of success

The founding of ADDCOMP in 1998 brought together in one company a breadth of experience and a depth of understanding of additives technology unmatched in the plastics industry. Since then, we have maintained our focus on the development and delivery of additive solutions for manufacturers and compounders of polyolefins, polyesters, polystyrenes, and polyamides. In little more than a decade, we have reshaped the way our customers value additive systems.



### Contact us

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