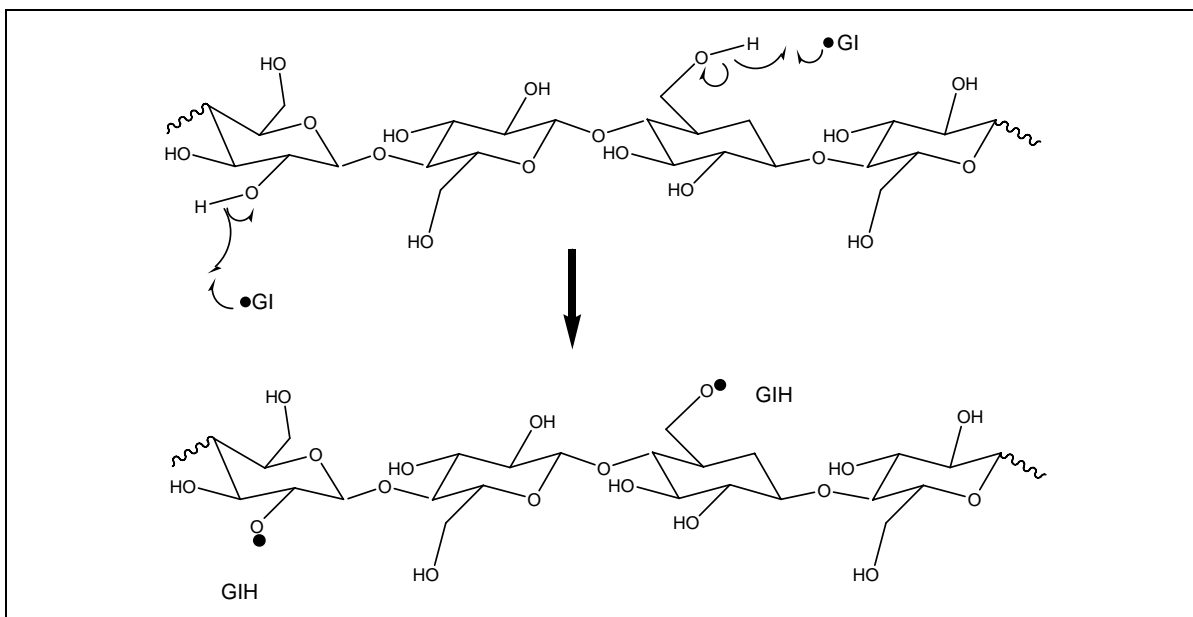


Chemical-Grafting TegaTeknology™ for Wood Substrate Preservation

TegaTeknology™ applicable to wood substrates is represented by a family of coating and pressure treatment products employing novel chemical-grafting technology incorporating monomers, prepolymers and proprietary graft initiator / catalyst systems. Unlike most commercial coatings and treatments that rely on ‘mechanical’ (impermanent and leachable) weak-force substrate attachment, TegaTeknology’s chemically-grafted systems achieve complete, nanotechnological interaction and durable ‘strong-force’ covalent bonding rendering permanent substrate modification. A broad spectrum of attributes imparting superior moisture, abrasion and chemical resistance, anti-fungal and anti-pest properties, UV protection, and pigmentation are available within TegaTeknology™ formulations.



TegaSeal™, TegaTegoSeal™, TegaBond™ and TegaTreat™ formulations function similarly, utilizing different monomers and prepolymers. In these systems, the key component is a proprietary graft initiator (GI), which produces a free radical, then undergoes a transfer mechanism to force the radical onto the substrate (in this case, cellulose chains, although hydroxyl groups in lignin are also excellent reaction sites). Once on the substrate, the free radical enables reaction with double bonds present in the polyfunctional monomers and prepolymers. A free radical polymerization ensues inside wood with the assistance of a catalyst. The result is a coating (or pressure treatment) that is covalently-bonded to the substrate.

Formulations are environmentally-benign aqueous solutions and emulsions. During the chemical-grafting and polymerization processes reactions proceed to completion; organic materials, including VOC's, are consumed in the reaction dynamics.

Are YOU ready for TegaTeknology™?

Substrate Inc. TegaTeknology™ Products Distributed by:

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