

# Grilbond® Next Generation Bonding Agents

EMS-GRILTECH



## Application

Grilbond® Next Generation is the latest development from EMS-GRILTECH and is designed to replace toxic substances in the dipping process for all synthetic fiber reinforcements used in the rubber industry.

For the deployment of polyester (PET) as tire cord or reinforcement material of mechanical rubber goods special bonding agents are required to improve the adhesion between PET and the rubber matrix. Grilbond® IL-6 NG is used for the pre-activation of naPET (non-adhesion activated polyester) in double-dip systems and in contrast to the currently used systems can be used without an epoxy.

Grilbond® IL-6 NG3 was developed to replace resorcinol and formaldehyde in the RFL dip. It can be applied to all known substrates using the existing machinery.

Grilbond® products are a key factor for a stable adhesion. Proven superior performance for over 40 years.

## The Grilbond® bonding agent system

The Grilbond® Next Generation system consists of Grilbond® IL-6 dispersions with a bio-based active ingredient with up to 40% concentration.

Grilbond® IL-6 NG and Grilbond® IL-6 NG3 are supplied as fine ground dispersions. The high dispersion consistency provides excellent distribution and homogeneity of the particles on the yarn.

## Benefits of Grilbond® Next Generation Products

- Up to 40% bio-based active ingredient content
- Made in Switzerland – carbon neutral!
- Easy to use
- Rapid dip preparation
- Highest consistency within dip solutions
- Optimum processability
- Reduced down time of the dip unit
- Cost savings and higher cord quality
- Up to 10% better fatigue performance
- Less foaming, higher line speed
- Improved adhesion to EPDM

### Worldwide available Products

| Grilbond® | Description | IBC* / Big Bag (Standard) | Bag / Can | Drum |
|---|---|---|---|---|
| IL-6 NG | Dispersion | 1'150 kg | 22 kg | 220 kg |
| IL-6 NG3 | Dispersion | 1'150 kg | 22 kg | 220 kg |

*Intermediate Bulk container (IBC)





## Key Advantages

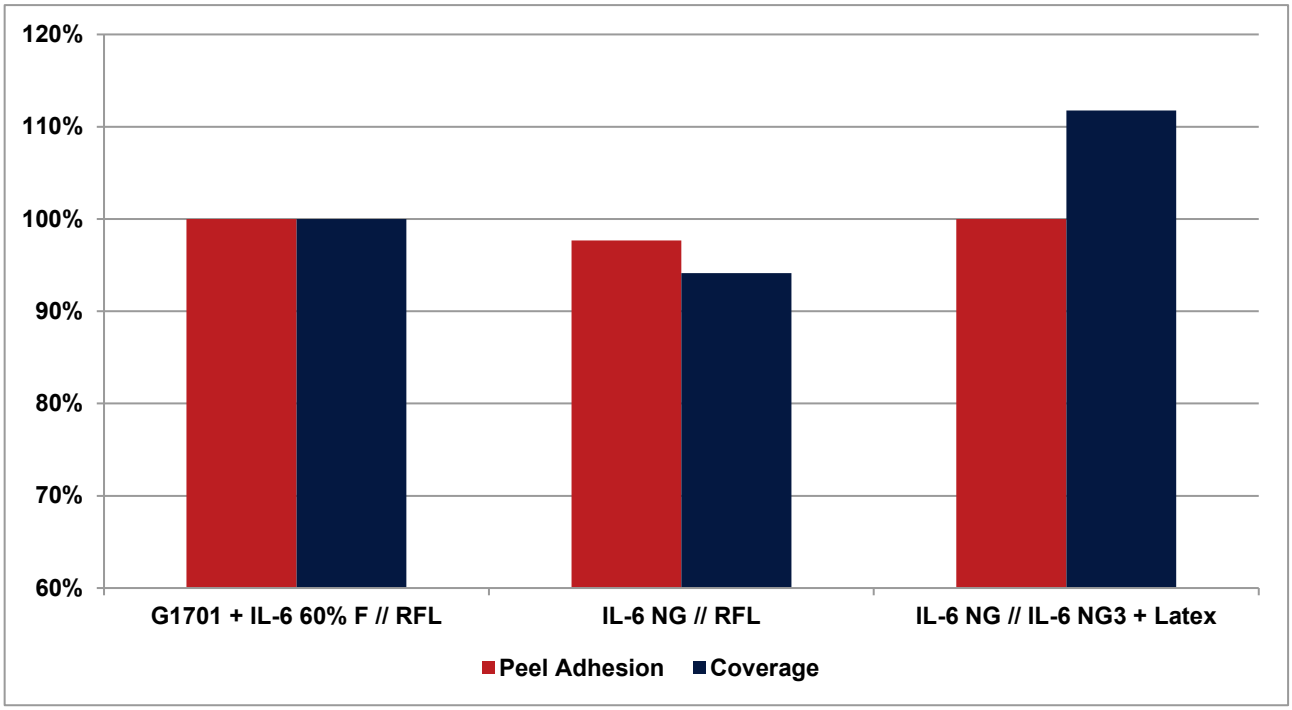
- Research & Development
  - New product developments
  - Customized products
  - Joint developments with customers
  - Customized dip solutions
- Application Technology Center
  - Lab dipping of single-end and fabric
  - Yarn & fabric testing and analytics
  - World-wide on-site support

## Success Factors

The trend in the tire industry towards more sustainable solutions is the driving force for innovations.

Grilbond Next Generation is helping the industry to reach the sustainability goals faster and cost-effective.

**No Compromise on Performance**






**EMS-GRILTECH worldwide**

www.emsgriltech.com

EMS-GRILTECH is a Business Unit of EMS-CHEMIE AG, which belongs to the EMS-CHEMIE HOLDING AG (www.ems-group.com).

We manufacture and sell Grilon, Nexylon and Nexylene fibers, Griltex hotmelt adhesives, Grilbond bonding agents, Primid crosslinkers for powder-coatings and Grilonit reactive diluents. We have developed these materials and additives into excellent specialty products for technically demanding applications. In this way we create added value for our customers as they can also only be successful with continual improvements.

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