

Economic Stabilization of Pallets for Safe Storage and Transport

Grip Fix America Inc. www.GripFix.com

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About Us

Grip Fix America Inc. www.GripFix.com

- We are wholly owned subsidiary of H. Rand GmbH
- Founded in 1980 by Hemlut Rand, still run by the family
- Production in Neuhofen, Germany, 100 km south of Frankfurt





About Us

Grip Fix America Inc.

www.GripFix.com

- We sell in 52 countries through exclusive partners
- North and South America, EU, Middle East, and Asia-Pacific
- 20% domestic (Germany) 80% global

Our markets include:

- Milling and Foodstuffs (flour, baking mixtures, animal feed, ...)
- Biofuels/Wood Pellets
- Construction (mortar, cement, gypsum, talcum, ...)
- Chemical and petrochemical Industry (plastic granulate, salts, ...)
- Many others (lawn and garden products, seed, pigments, other industrial products)



Solving Problems in Distribution and Materials Handling

Safety of Pallet Loads













Cost of Packaging Material



Concept of Stabilizing Pallets

2 Part System

GRIP FIX® waterbased and solvent free Antislip Agents

BAG FIX® application systems for applying GRIP FIX



GRIP FIX: The Heart of the System



- Waterbased & solvent-free
- More than 120 different GRIP FIX formulations
- Suitable for many substrates, including PE, paper, or cartons
- FDA compliant for food packaging
- 100% biodegradable
- Zero carbon footprint



How does GRIP FIX™ work?



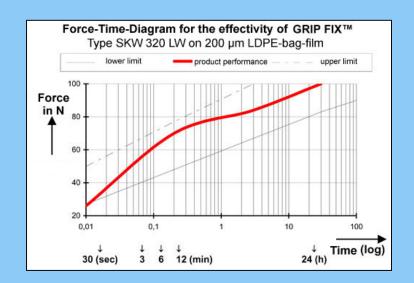
- GRIP FIX[™] is applied in small quantities to single packages before palletizing.
- After a short drying time, the pallet is stable and remains so until the pallet is unloaded.

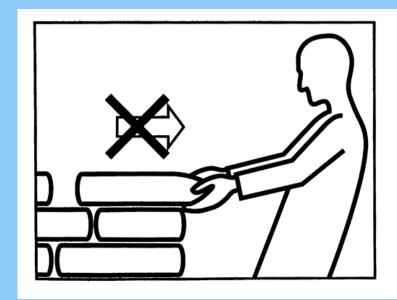


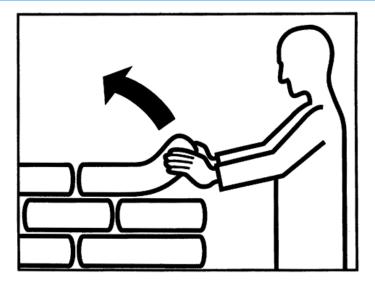
How does GRIP FIX™ work?

The Trick:

- High shear strength and low tensile strength
- The pallet loads do not slip but can be easily separated

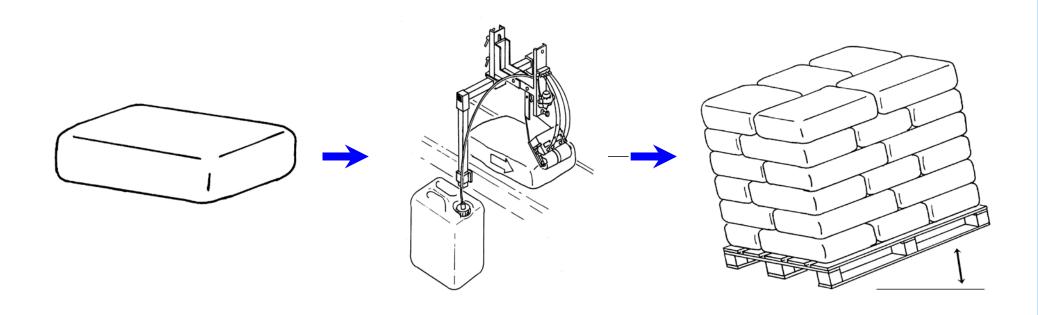








Stabilizing Pallets



Consumption per package:

PE-Bags 0.5 - 1.0 g Paper-Bags 1.5 - 2.0 g Cartons 1.5 - 4.0 g



BAG FIX Application Systems



BAG FIX™ Application Heads

12 different BAG FIX application systems are available:

- Manual
- Fully-Automatic
- Contacting or Contact-less Application
- Customized Systems

So far 2500 Bag Fix Systems have been installed in 50 countries

BAG FIX Application Systems



- Small Footprint allows for easy installation
- Robust design
- Economical alternative to stretch hooders and shrink wrappers
- Quick-release closure produces a closed system
- Wide range of packaging, from 1 kg up to 1000 kg





BAG FIX Application Systems





- ESP 4 enclosed for aggressive environments
- S20 heated for cold environments
- ESP 2-Combi for paper and woven bags



Advantages for the Milling Industry

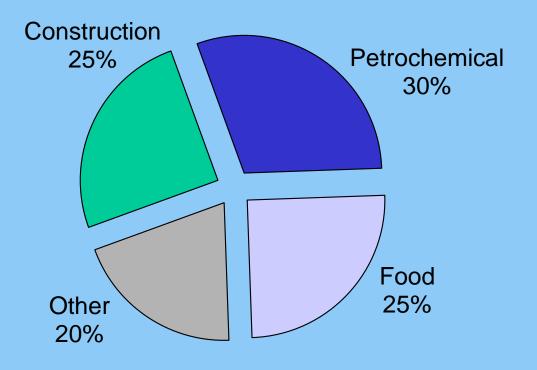
- Increased Safety of the Distribution System
- Reduce Packaging, Labour Costs, and Rejections
- Potential Increase in Shelf Life

Contributes to a cleaner Environment



Reference

Industry of our Customer:



Customers Include:

(alphabetical order)

BASF

Bayer

Borealis

DOW

Evonik

ExxonMobil

Knauf

Unilever



Unilever: Handsoap





- Stabilizing with GRIP FIX and a string for the last layer
- Savings on cost and garbage of about 14 t stretchfilm / year

Facts:

- 32,000 t of soap / year
- Export to 86 countries
- 117 cartons per pallet (660 kg)



Sano: Animal Feed





- Stabilizing with GRIP FIX
- Savings on cost and garbage of about 45 t stretchfilm / year

Facts:

- 180,000 t of pet food / year
- Export to 12 countries
- 40 paper bags / pallet (1,000 kg)



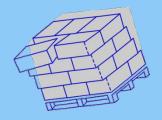
Molino-di-Assisi





- One of nearly 200 BagFix units installed in milling in Italy
- Flour mill, part of the Grigi Agricultural group
- Stabilizing with Grip Fix
- Eliminating stretch film reduced condensation, resulting in 50% increase in shelf life





Palletizing Safety Systems

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Questions?