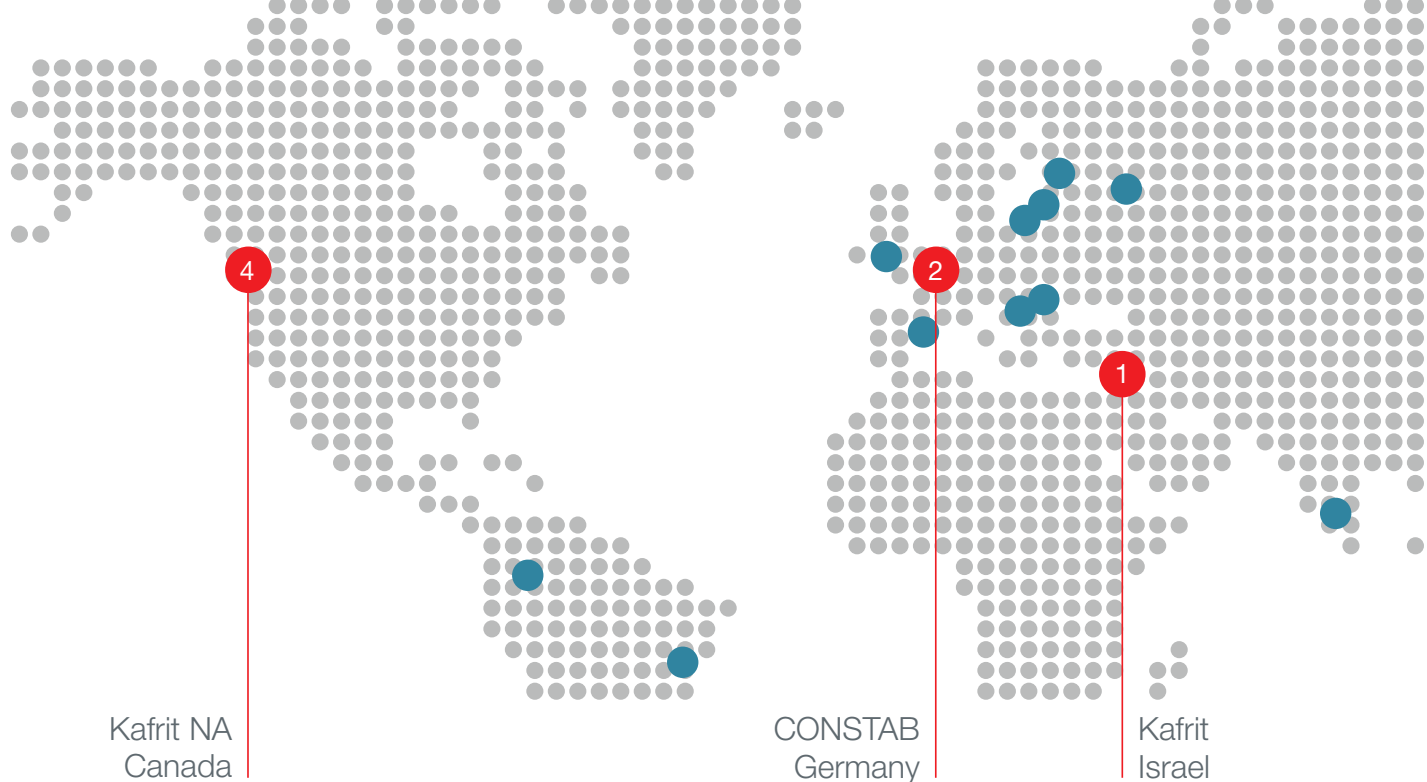


Blowing Agents

Blowing a new wind in your products
with Kafrit Masterbatches and Compounds



Giving Life to **Plastic**



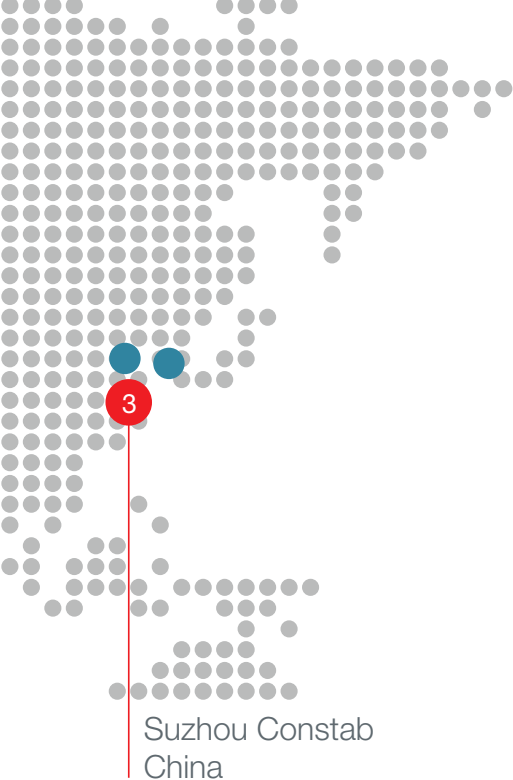
Defining new production goals: Experience the new high performance products.

Kafrit Group is a leading producer of Masterbatches and Compounds for the plastics industry and currently employs more than 400 people. In 2015, the Group achieved a 191 million \$ turnover with an available capacity of more than 82,000 MT. Moreover, the company is active on a global scale and has set up production sites all over the world. All of this began in 1973 when the company was founded in Israel. Since then, the company has grown primarily via acquisition.

Today, the Kafrit Group incorporates Kafrit Industries (1993) Ltd. in Israel, CONSTAB Polyolefin Additives GmbH in Germany, China's Suzhou Constab Engineering Plastics Co. LTD and the Canada-based Kafrit NA Ltd.. With more than 44 years of experience in the plastics processing industry, the company can draw on high levels of expertise and technical know-how. Kafrit Group places a high value on sustainability and has made it to one of the cornerstones of our corporate strategy. Our unbridled dedication to environmental, social and financial issues makes us to one of the leading business partners in the plastics industry. Our customers value our passion and appreciate our ecological awareness and social commitment. Moreover, they recognize our world leading services and consider our products as among the best within our industry.

We develop and produce cost-efficient solutions which will enhance the completion of high-quality end products in many areas of the plastics industry, such as packaging films (BOPP, CPP, PE), PC sheet, agricultural films and derivatives, biopolymers, flame retardant applications, PEX pipes, fibers and nonwovens. Along with many other products, the Kafrit group supplies the following Masterbatches and Compounds:

- Acid Scavengers
- Antiblock
- Antifog
- Antimicrobial Agents
- Antislip
- Antistatic
- Color Concentrates
- Flame Retardants
- Fillers
- Foaming Agents
- IR Absorbers
- Light Stabilizers
- Lubricants
- Matting Agents
- Metal Deactivators
- Nucleating Agents
- Optical Brighteners
- Processing Aids
- Purge Agents
- Release Agents
- Slip Agents
- UV Absorbers
- UV Blockers
- White Masterbatches



Suzhou Constab
China

- Kafrit production sites
- Agencies/Distribution

Research that takes us to the top

Throughout our company history, research and development have always been a key area of our expertise. Kafrit employs a staff of more than 400 people that work on innovative products and make use of our vast pool of knowledge that we developed in our 44 years of experience in the plastics industry. Our experts optimize and develop additive concentrates, flame retardants, color concentrates and compounds for various applications. Kafrit enjoys a close partnership with renowned research institutions at the Shenkar University in Israel and at different universities in Germany. Moreover, we maintain a strong co-operation with well-known suppliers including machine manufacturers who recommend our products for use in combination with their machines.



Our vision:

We aim to be the preferred technological partner of the plastics industry by continually supplying our global customers with innovative and high quality solutions that are fitted to their specific needs.

Blowing Agents

Chemical Blowing Agents (BA) are added to the polymer, mainly to reduce density by replacing polymer with air. The decomposition of the BA can be either Endothermic or Exothermic.

Exothermic BAs

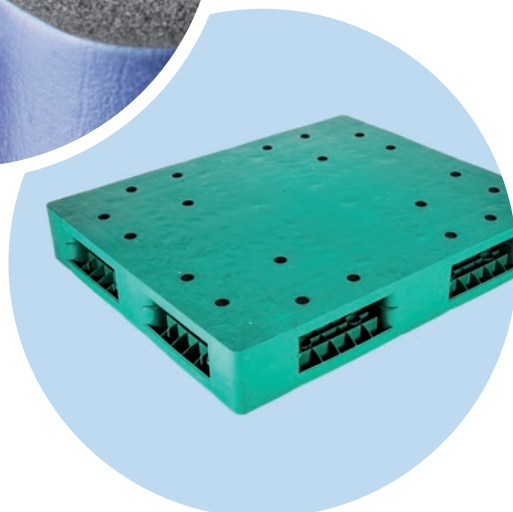
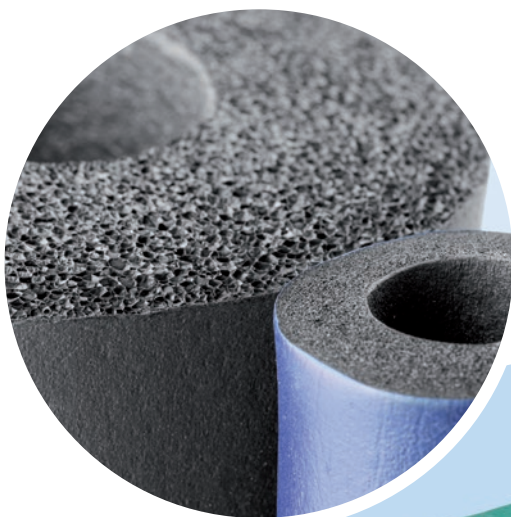
- release energy during decomposition
- are based on hydrazine or azo compounds
- have yellowish tint

Endothermic BAs

- consume energy during decomposition
- require continuous energy input during the process
- are based on bicarbonate and citric acid.

There are other advantages, by using blowing agents

- reduce process temperatures – save energy
- reduce cycle times (in injection molding)
- eliminates surface imperfections



Blowing Agents in Kafrit

Code	Main Applications	BA type
FM 00D41 LD	Large/thick wall molded parts such as: containers, pallets, warehouses.	70% of Sodium Bicarbonate
FM 00R57 LD FOAM	Large/thick wall molded parts such as: containers, pallets, warehouses.	40% of Sodium Bicarbonate
FM 0R170 LD FOAM	Large/thick wall molded parts such as: containers, pallets, warehouses.	40% of ADC (Azodicarbonamide)
FM 09570 LD FOAM	Extruded foam products such as: thermal insulation boards	Sodium Bicarbonate and Nucleation
FM 0895D EVA FOAM	PVC extruded sheets	Mix of ADC (Azodicarbonamide) and Sodium Bicarbonate
FM 00150 PP	Injection molded	Sodium Bicarbonate
CTB 12/050	Extrusion coating	Sodium Bicarbonate

Together with our customers we tailor a specific solution in order to achieve significant added value.

Our versatile production equipment allows us to combine different technologies and raw materials in order to find an optimized solution.

Our Values:

Technology: We continue to rely on advanced know-how and technologies, securing our future.

Quality: We warrant our products are produced under strict and advanced quality assurance guidelines.

Safety: We ensure our employees always follow safety procedures.

Environment: We are committed to complying with environmental regulations and promoting environmental responsibilities.

Employees: We value the different ideas, experiences and backgrounds of our employees.

Leadership: We lead by example. We coach, educate and guide our workforce enabling them to achieve their full potential.

Empowerment: We encourage our employees to be innovative, make decisions and take responsibility for their actions.

Teamwork: We strive to work as a team and individuals, reaching our common goals.

Continuous Improvement: We are constantly striving to do the right things even better.

Ethics: We are fair, truthful, and consistent in our business and personal practices



Global supply, local partnership:
We are where you are.

KafritGroup

Kafrit

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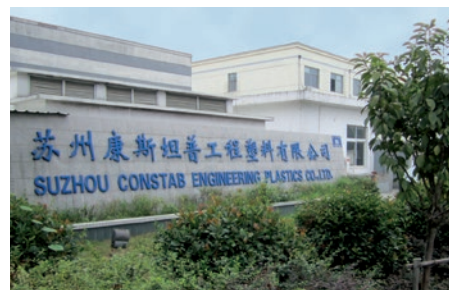
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Please request for further information:

- **Injection Molding**
Injecting new ideas into your products with
CONSTAB Masterbatches and Compounds
- **Blow Molding**
Forging Success with innovative
CONSTAB Masterbatches and Compounds
- **Polycarbonate Sheets**
for a transparent view with Kafrit Masterbatches
and Compounds
- **Agricultural Film**
Growing Success with Kafrit Group
Masterbatches and Compounds
- **Flame Retardants**
Enlightening Solutions with Kafrit Masterbatches
and Compounds
- **Packaging your needs**
with Kafrit Group Polyester Masterbatches and
Compounds
- **Optimizing BOPP film production**
with CONSTAB Masterbatches and Compounds

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