

CONSTAB[®]

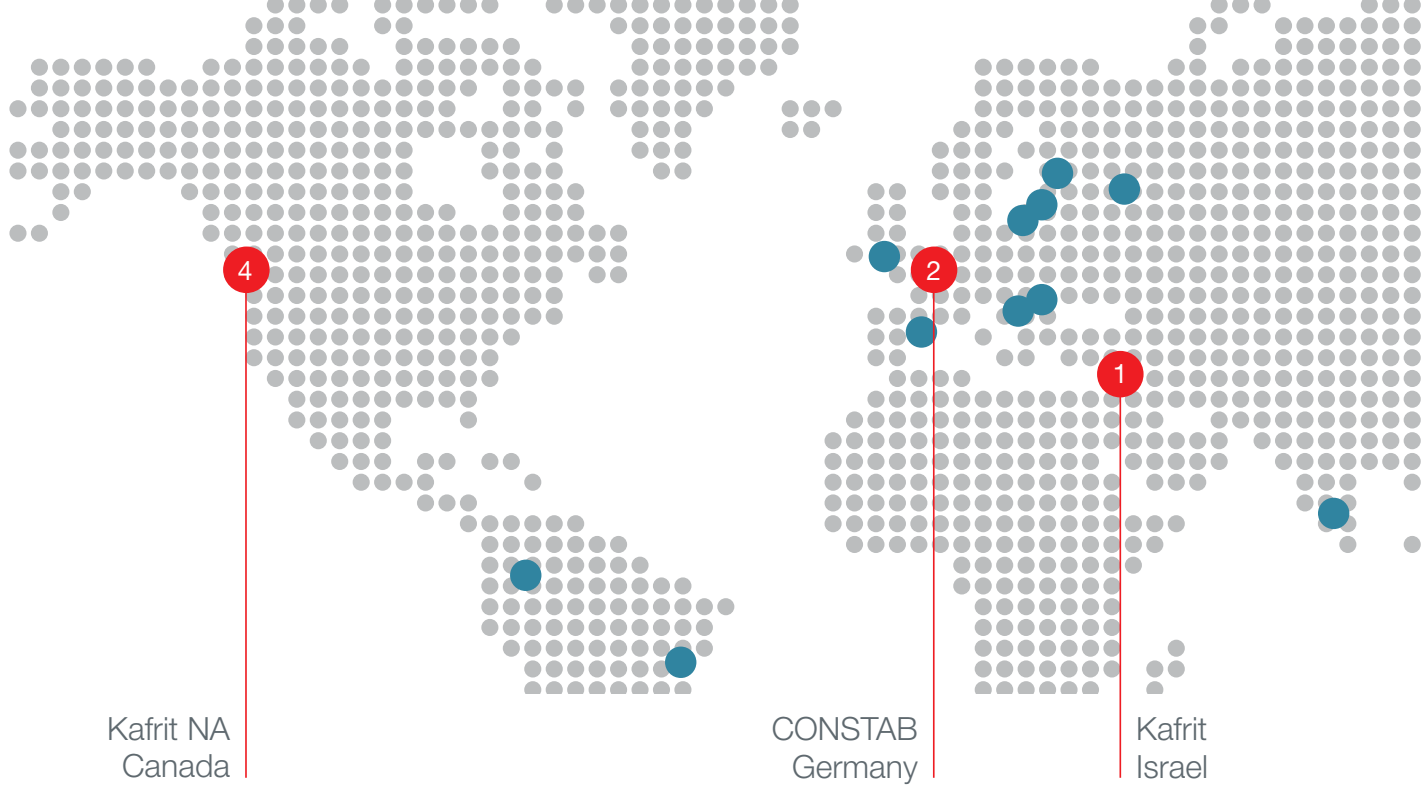
Member of **Kafrīt**Group

Blow Molding

Forging Success
with innovative CONSTAB
Masterbatches and Compounds



Giving Life to **Plastic**



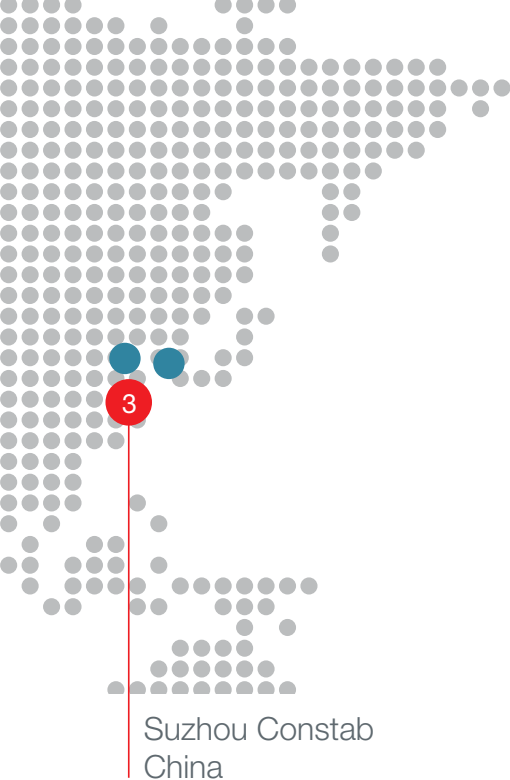
Defining new production goals: Experience the new high performance products.

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.

Individually tailored to your demands:

High-performance Masterbatches to match even ambitious requirements.

The blow molding manufacturing process subjects plastic particles to a lot of strain. During the process, the plastic is melted down and then goes through complex forming and cooling procedures until it is eventually ejected as a finished part.

In order to obtain a final product with the desired characteristics, you will require the fine-tuning capabilities of Masterbatches.

Depending on your individual requirements, we offer suitable and innovative Masterbatches of the highest quality for all types of blow molding processes including injection molding or extrusion blow molding. **Our nucleating agents and cleaning compounds offer additional advantages for quality improvements and will ensure an optimal production process.**

1. Purge

Code	Description	Dosing %
PR 00701 LD	Cleaning product, PE based	50.0
PR 00701 PP	Cleaning product, PP based	50.0
PR 09180 PP	Abrasive cleaning product. Shortens change over times	25.0 – 100.0

2. Stabilizer

Code	Description	Dosing %
ST 03003 LD	Start stop and processing stabilizer, prolonged processing heat. Very suitable when regrind is used. PE based	1.0 – 1.5

3. UV-Masterbatch

Code	Description	Dosing %
UV 06250 LL	UV stabilizer for thin polyolefin articles	2.0 – 6.0
UVA 03650 LD	Protecting packaged goods against UV degradation	1.0 – 6.0

4. Nucleator/Clarifier

Code	Description	Dosing %
NC 00602 PP	Clarifier, minimum process temperature 210°C, max 270°C	1.5 – 2.5
NC 00607 PP	Clarifier with extremely low migration	3.0 – 3.5
NC 00611 LL	Nucleating agent, improves stiffness	1.5 – 4.0
NC 00615 PP	Pigment leveling	1.0 – 3.0
NC 02160 PP	Pigment leveling	1.0 – 3.0
NC 00624 PP	Clarifier, extreme clarity for PET replacement	1.0 – 4.0
NC 00626 LL	Nucleating agent, improves stiffness	1.0 – 4.0



Crystal clear PP
with NC 00624 PP

5. Antistatics

Code	Description	Dosing %
AT 04082 PP	Mold release and Antistatic agent	1.0 – 4.0
AT 04003 PP	Mold release and Antistatic agent, also available as HD version	2.5 – 5.0
AT 04073 LD	Antistatic agent, prevents dust pick up of articles. Short and long term performance, functioning also at lower humidities	1.0 – 6.0
AT OB790 LL	Synergistic blend of fast and slow migrating products	1.0 – 4.0



”We value the reliability and the relationship with Kafrit Group, their competence and technical support as well as the high quality of products – also swift delivery times.“

6. Color

Code	Description	Color	Dosing %
CC 18160 HD NEW!	60% TiO ₂ PE-HD based	White, opaque	2.0 – 8.0
CC 18160 LD	60% TiO ₂ PE based	White	2.0 – 10.0
CC 12720 HD	70% TiO ₂ PE based	White	1.0 – 10.0
CC 18160 PP	60% TiO ₂ PP based	White	2.0 – 10.0
CC 18170 PP	70% TiO ₂ PP based	White	1.0 – 10.0
CB 14330 LL	White and UV	Blue	1.0 – 10.0
CC 11250 LL	White for outside use, yellow shade	Blue	1.0 – 10.0
CB 14350 LD	White and Antistatic batch	Blue	1.0 – 10.0
CB 60097A LL	Blue	Blue	1.0 – 4.0
CC 60J19C LL	Blue Color Masterbatch, RAL 5010	Blue	1.0 – 4.0
CB 60J540 LL	Blue and Processing Aid, RAL 5010	Blue	1.0 – 4.0





A colourful and highly satisfactory experience:

Ka.LA provides high precision and repeatability even at low dosing rates.

Ka.LA®

Kafrit Group offers Ka.LA® Liquid Color Concentrates – fine dispersions of pigments in a liquid carrier. Ka.LA® Liquid Colorants are produced by an integrated system of mixing and grinding powder pigments in a vegetal oil medium. This unique, patent-pending process breaks down the pigment into finer particles than would be achievable by milling and disperses them in an environment-friendly carrier, leading to excellent color uniformity and high stability, without any risk of the pigments migrating out.

Ka.LA® Liquid Colorants can be used with thermoplastic as well as with thermosetting polymer systems and are dosed directly into the plastic melt flow at any point between the hopper and the last third of the processing machine, for quick mixing with the polymers.

Ka.LA® is not just a product – it is a full system containing a pump and hoses to convey the liquid into the process. Kafrit Group offers customers a full, closed-loop system, using a PC (progressive cavity) pump with volumetric control and ensuring high precision and repeatability even at low dosing rates.

Ka.LA® Advantages

- High quality coloring – accurate metering, excellent dispersion and high colorant concentration ensure good color consistency in the end product.
- Cost effectiveness – the ability to load Ka.LA® Liquid Colorants with high concentrations of pigments and the fine grinding mean lower dosages and cost savings.
- Green carrier – Ka.LA® concentrates are based on vegetal oil, a renewable, environment-friendly medium, containing no solvents.
- Universal carrier – the oil is suitable for all polymers, eliminating inventory issues. Also, the low LDR needed prevents any impact on the polymer properties.
- High heat stability – the oil is resistant to temperatures up to 400°C.
- Reduced setup/color-changeover times – the time needed to create a homogenous mixture with the polymer is short, eliminating much of the scrap generated during these stages and leading to considerable cost savings.
- Applicability to heat-sensitive polymers – Ka.LA® Liquid Colorants do not require melting before being mixed with the polymer.

7. Ka.LA

Code	Description	Color	Dosing %
Ka.LA 17260	White for preform PET	White	up to 1.0
Ka.LA 10A86 White	White liquid color	White	0.1 – 1.5
Ka.LA 15360 White	60% pure TiO ₂ in liquid	White	0.1 – 1.5
Ka.LA 60F77 Blue	Blue liquid color, RAL 5010	Blue	0.1 – 1.5
Ka.LA 60H71	Transparent Blue liquid color, for preform PET	Blue	0.03 – 0.5
Ka.LA 60J27	Transparent Blue liquid color, for preform PET	Blue	0.03 – 0.5
Ka.LA 60J56	Transparent Blue liquid color, for preform PET	Blue	0.03 – 0.5
Ka.LA 60620	Transparent Blue liquid color, for preform PET	Blue	0.03 – 0.5
Ka.LA 10A86	Blue liquid color, for preform HDPE	Blue	up to 1.0
Ka.LA 60620	Blue liquid color, for preform HDPE	Blue	up to 1.0
Ka.LA 50G85	Transparent Pink liquid color, for preform PET	Pink	0.10 – 0.5
Ka.LA 70C66	Transparent Green liquid color, for preform PET	Green	0.03 – 0.5
Ka.LA 80C07	Brown liquid color, for preform PET	Amber	0.10 – 1.0

Already after the first 2-3 colored bottles, a homogeneous color distribution can be seen. The bottles produced with Ka.LA® need 30 cycles for color changeover to the final color. This is a saving of 70 cycles or approx. 70% vs. granule MB.

The color change is quicker as mentioned, from the very beginning homogeneous distribution of color in the part can be seen, and it just takes time until the required color is reached.



8. Foaming

Code	Description	Dosing %
FM 00130 PP	Density reduction	1.0 – 2.0

9. Processing Aid

Code	Description	Dosing %
PA 00833 LD	Processing aid, prevents die buildup and gives a smoother, more glossy surface	1.0
PA 00833 PP	Processing aid, prevents die buildup and gives a smoother, more glossy surface	1.0

10. Biodegradable

Code	Description	Dosing %
Ecomp 120	Biodegradable/Compostable compound	100.0



The protection of resources and the responsible use of energy and environment are major challenges of our society. ECOMP 120 represents an environmentally compatible, innovative solution.



The images on pages 1, 6 and 10 have been kindly provided by W. Müller GmbH, Am Senkelsgraben 20, D-53842 Troisdorf-Spich. www.w-mueller-gmbh.de

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

KafritGroup

Kafrit

Kafrit Industries (1993) Ltd.

Kibbutz Kfar-Aza,
M.P. Negev, 8514200, Israel
Tel: +972 8 6809845
Fax: +972 8 6809846
kafrit@kafrit.co.il
www.kafrit.com



CONSTAB

CONSTAB Polyolefin Additives GmbH

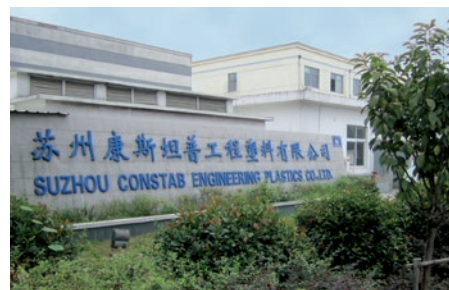
Industriestrasse Möhnetal 16
59602 Rülten, Germany
Tel: +49 2952 8190
Fax: +49 2952 3140
info@constab.com
www.constab.com



SUZHOU CONSTAB

Suzhou Constab Engineering Plastics Co. LTD

Yingyan Road (E), Tongli Town,
Wujiang, Jiangsu, P.R. China.
Tel: +86 512 63331654/63336478
Fax: +86 512 63336987
Postcode: 215217
info@constab.cn
www.constab.cn



Kafrit NA Ltd.

Kafrit NA Ltd.

5411-275th Street, Langley
British Columbia, Canada, V4W 3X8
Tel: +604 607 6730
Fax: +604 607 6736
management@kafrit.ca
www.kafrit.ca



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Please request for further information:

- **Injection Molding**
Injecting new ideas into your products with
CONSTAB Masterbatches and Compounds
- **Packaging your needs** with Kafrit Group
Masterbatch 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
- **Optimizing BOPP film production**
with CONSTAB Masterbatches and
Compounds
- **Adding value to Nonwovens**
with CONSTAB Masterbatches

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Giving Life to **Plastic**