

MICRO-PAK®



MICRO-PAK®

Mold Prevention from Factory to Retail

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ABOUT US

Micro-Pak Ltd. is the leading supplier of anti-microbial packaging materials for the consumer goods industries.

Micro-Pak® products are designed for both ease of use as well as low cost and are widely used by major brands, retailers and wholesalers around the globe.

Micro-Pak® Stickers and Micro-Pak® PE Sheets are now used in more than one billion products annually.

Micro-Pak® products are registered with the Environmental Protection Agency (EPA) in the US and are REACH pre-registered in the EU. We are presently also registering our products under the EU Biocidal Products Regulation (BPR) and will be fully compliant within the transition period for treated articles. Micro-Pak has an active sustainability program and has achieved Cradle to Cradle Certified TM Silver level.

Micro-Pak is headquartered in Hong Kong with offices in Portland (Oregon), New York, Holland and China.

Distribution of Micro-Pak® products is carried out through a network of more than thirty authorized distributors around the world.

Please refer to our website www.micropakltd.com for a complete list of distributors.

OVERVIEW

Micro-Pak is in the business of preventing mold. We achieve this through a combination of products and services designed to reduce the conditions that cause mold and by eliminating any residual mold spores. Our products are easy to use and comply with rigorous safety standards set by national authorities as well as individual companies' policies. Our services focus on education, training and maintenance of effective mold prevention practices so as to assist our customers in establishing proper mold prevention procedures. This holistic approach enables companies to avoid costly mold-related issues at a minimum of cost.

Fundamental to Micro-Pak's approach is to offer mold prevention solutions at every stage in production from factory to retail, helping companies achieve three major integrity principles for preventing mold on consumer goods:

1

FACTORY INTEGRITY

Maintain a clean, dry and organized manufacturing environment. Micro-Pak Technical Services can help you achieve this goal.

2

PRODUCT INTEGRITY

Protect the packaged product. By using Micro-Pak® Stickers and Sheets you will ensure that your products receive close and continual protection against mold.

3

CONTAINER INTEGRITY

Control the environment within the shipping container in a practical, inexpensive and sustainable manner through the use of Micro-Pak Clariant container desiccants.

BENEFITS



EFFICACY



Through extensive and continual third party testing in internationally recognized laboratories Micro-Pak® products have demonstrated continuous efficacy for periods of over five months.



REGULATORY



Micro-Pak® products are registered in the US per the Environmental Protection Agency (EPA) requirements as well as in all fifty states. In the EU Micro-Pak® products are REACH pre-registered and are in the process of being registered under the Biocidal Products Regulation (BPR).



SAFETY



As part of our Environmental Protection Agency (EPA) registration Micro-Pak® products underwent rigorous safety testing for skin irritation, inhalation, ingestion as well as other points and were approved in all areas. Micro-Pak® products are EPA Toxicity Category IV which is the lowest (safest) rating issued by the EPA.



COMPLIANCE



Micro-Pak has an extensive restricted substance test protocol and complies with Proposition 65 as well as the restricted substance lists of the AAFA, FDRA, SATRA and major brands and retailers throughout the world. Micro-Pak® products are also REACH pre-registered in the EU as well as compliant with the latest list of Substances of Very High Concern (SVHC).



TRAINING



Micro-Pak has a highly qualified technical team available for seminars, on-site training and factory audits. Micro-Pak technical offices have advanced and unique lab facilities for conducting mold spore counts and species identification.



SUSTAINABILITY



Micro-Pak has a continuously developing sustainability program headed by our Sustainability Officer based in the Portland office. Micro-Pak is also a member of the Sustainable Packaging Coalition and has achieved Cradle to Cradle Certified TM Silver level.



GLOBAL



Micro-Pak has offices in Hong Kong, Portland (Oregon), New York , Holland and China as well as an international network of over thirty authorized distributors around the world. This allows us to offer customer service on a 24/7 basis. If required our staff can, within hours, be in your US, European or Asian offices, factories or retail stores.

PRODUCTS

Micro-Pak® Stickers

MICRO-PAK®



LDPE
RECYCLABLE



Micro-Pak® Stickers are a safe and effective product for preventing mold and are designed for many box packed items particularly footwear.

Micro-Pak® Stickers are delivered in foil sealed pouches and are easy to use with one or more stickers placed in the individual box at the time of final packing.

Micro-Pak® Stickers are activated by moisture. When the relative humidity reaches a pre-set level the stickers will create and release an atmosphere within the box to actively eliminate mold spores. As Micro-Pak® Stickers will not start to work until the humidity has reached a certain level you are assured that your product will be protected when needed.

Micro-Pak® Stickers come in a variety of colors with the only difference being the appearance. Green stickers are always in stock and other colors are available on a seasonal basis. Please contact info@micropakltd.com for availability of custom colors.



PRODUCTS

Micro-Pak® PE Sheets



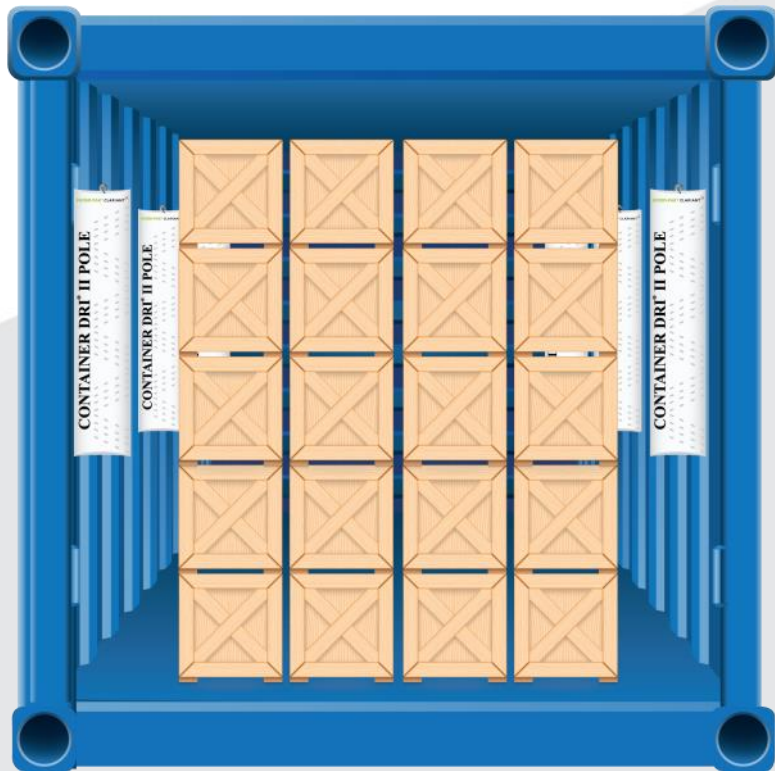
Micro-Pak® PE Sheets are designed for polybag packed merchandise and come in five different sizes. Micro-Pak® PE Sheets are delivered in foil sealed pouches and are easy to use with one or more sheets placed inside the polybag at the time of final packing.

Micro-Pak® PE Sheets are activated by moisture. When the relative humidity reaches a pre-set level the sheets will create and release an atmosphere within the package to actively eliminate mold spores. As Micro-Pak® PE Sheets will not start to work until the humidity has reached a certain level you are assured that your product will be protected when needed.

The five sizes of Micro-Pak® PE Sheets enable you to select the most suitable sheet for your particular item and packing method. This will ensure that your product is fully protected at a minimum of cost.

PRODUCTS

Micro-Pak® Clariant Container Desiccants



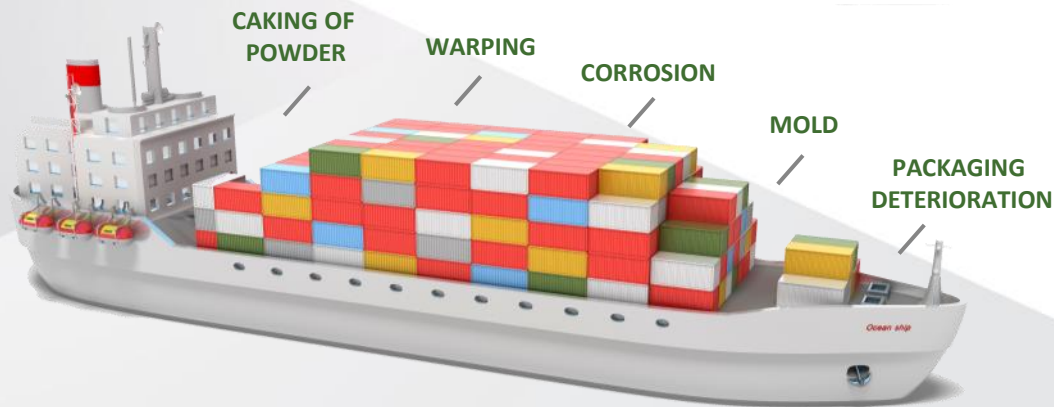
Micro-Pak Clariant container desiccants are a moisture control solution that remove moisture from the air inside containers, protecting products from all forms of moisture damage during shipment and creating an environment inside the container that is less suited to mold growth.

Manufactured by Clariant (www.clariant.com), one of the world's largest specialty chemical companies, Micro-Pak Clariant container desiccants provide unsurpassed moisture control during container transport. Using unique combinations of a high purity deliquescent salt combined with a scientifically modified starch, Micro-Pak Clariant container desiccants will remove moisture from containers at a higher rate and lower cost than any product on the market.

Micro-Pak Clariant container desiccants are designed to supplement Micro-Pak® Stickers and Sheets, providing you with an anti-mold solution inside the product packaging and an anti-moisture solution outside the product packaging.

PRODUCTS

Micro-Pak® Clariant Container Desiccants



Why Container Desiccants?

Not every shipment suffers moisture damage. But when damage occurs it often results in substantial losses and costs.

Moisture damage appears to happen at random. Four shipments may arrive in perfect condition while the fifth is a disaster. The reason for this is because moisture processes are non-linear.

Very small differences in the cargo and voyage conditions can have very significant impacts on moisture levels and therefore moisture damage. There is always a risk of moisture damage in the next shipment, even if the last one arrived in good condition.

Use Less, Pay Less, Save More

Micro-Pak Clariant container desiccants have exceptional absorption capabilities and can absorb up to 300% of their own weight in moisture. This is twice the absorption capacity of comparative products. With Micro-Pak Clariant container desiccants you can reduce the quantity of desiccant required per container by 25% or more. This means tremendous savings.

Please contact desiccants@micropakltd.com for specific usage recommendations.

PRODUCTS

Sporicidin®



Sporicidin® products are distributed by Micro-Pak Ltd. for cleaning and disinfecting factory walls, floors and working surfaces as well as moldy materials. Through the use of Sporicidin® products, factories can be kept clean for months at a time.

Sporicidin® products are made in the USA and have been used in hospitals, medical offices, laboratories, and pharmaceutical clean rooms since 1978. Sporicidin® products are EPA-registered and FDA and OSHA compliant and when used correctly are a safe and effective method for the removal and prevention of mold.

Sporicidin® products offered by Micro-Pak include Sporicidin® Disinfectant Solution, Sporicidin® Disinfectant Towelettes and Sporicidin® Enzymatic Cleaner.



PRODUCTS

Sporicidin® Usage

Sporicidin® Disinfectant Solution and Sporicidin® Towelettes are used to clean, disinfect and deodorize materials, equipment and surfaces.

When used properly Sporicidin disinfectants can provide continuous residual anti-microbial bacteriostatic activity for up to four months (results may vary) and are safe to use on most plastics, treated wood, glass, and metals.

Sporicidin® Enzymatic Cleaner is a concentrated combination of three enzymes (protease, amylase and lipase) and is used for deep cleaning and removal of mold. Sporicidin® Enzymatic Cleaner is used to remove mold and other organic contamination from walls, floors, ceilings, and other surfaces inside factories.



The Sporicidin® Enzymatic cleaner is safe to use on most plastics, treated wood, glass and metals but should not be used on finished product.

PRODUCTS

Micro-Pak® Dispenser Boxes



Micro-Pak®

The Micro-Pak® Dispenser Box should be used when working with Micro-Pak® Stickers and Sheets. The boxes are easy to use and have multilingual instructions as well as pictures for the workers.



PRODUCTS

Micro-Pak® Dispenser Boxes



Dispenser boxes are supplied from Micro-Pak Hong Kong as well as via our authorized distributors.

Please note the dispenser boxes are not for storage of stickers and sheets. Micro-Pak® Stickers and Sheets should be opened and placed in the dispenser box only when they are ready to be used.

In case you are missing dispenser boxes you should keep the stickers or sheets inside the foil pouch and just make an opening to pull out stickers and sheets as needed.

HOW TO USE MICRO-PAK® STICKERS

Recommended Use of Micro-Pak® Stickers

Micro-Pak® Stickers are used mainly for box packed footwear (polybag packed footwear should always use Micro-Pak® PE sheets). Micro-Pak® Stickers are easy to use and the number of stickers will depend on the size of the shoebox as well as climate conditions. Please refer to our website www.micropakltd.com Instructions for Use for further details.

OUR GENERAL RECOMMENDATIONS ARE AS FOLLOW:

- ✓ For children's, ladies' and men's shoes normally one piece of Micro-Pak® Sticker is sufficient.
- ✓ For ladies' boots and men's boots two pieces of Micro-Pak® Stickers are recommended for ideal results.
- ✓ For polybag packed merchandise always use Micro-Pak® PE Sheets instead of Stickers.



1. Open the foil package.

2. Remove the roll of Micro-Pak® Stickers and place them in the Micro-Pak® dispenser box.

3. Tear off one or more pieces of Micro-Pak® Stickers.

4. Stick them on the inside of the box at the time of final packing.

5. Close the box and pack in the master carton.

6. Place the unfinished roll back in the foil package and seal it with tape.

HOW TO USE MICRO-PAK[®] PE SHEETS

Recommended Use of **Micro-Pak[®]** PE Sheets for
polybag packed merchandise.

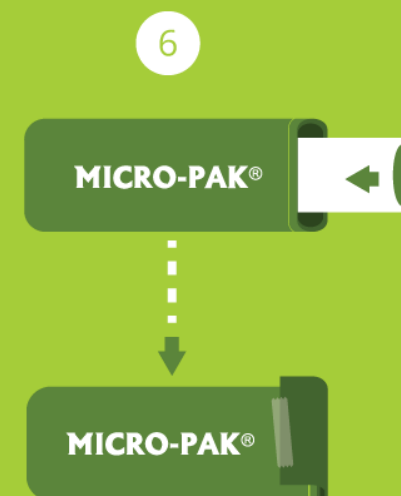
Micro-Pak[®] PE Sheets are used for all polybag packed items (as well as any item with genuine lambs fur). Micro-Pak[®] PE Sheets are easy to use and come in five different sizes. The size and number of sheets required will depend on the size of the item, the packing method as well as climate conditions. Please refer to our website www.micropakltd.com Instructions for Use for further details.



1. Open the foil package.
2. Remove the roll of Micro-Pak® PE Sheets and place them in the Micro-Pak® dispenser box.



3. Tear off one or more Micro-Pak® PE Sheets.
4. At the time of final packing place the sheets under, inside or around the item being packed.



5. Place the item inside the master carton.
6. Place the unfinished rolls back in the foil package and seal with tape.

TECHNICAL SERVICE

The Micro-Pak Technical Service Package is a combination of education, training, factory analysis, reporting, corrective action planning, reanalysis and analytics. The goal of the technical service package is to assist manufacturers in identifying and eliminating any shortcomings in the production process that may lead to mold issues.

Micro-Pak has dedicated technical personnel based in China, Vietnam, India and Bangladesh.

EDUCATION

Micro-Pak technicians will hold regularly scheduled seminars to educate all involved personnel on the issues of mold growth and prevention. This will involve multilingual PowerPoint presentations, case studies, demonstrations and in-depth question and answer sessions. These seminars can be focused solely on mold related issues or can be combined with a customer's general training events.

Micro-Pak also offers online training courses covering a variety of mold prevention topics so you can train a mold prevention expert in your company. Please refer to our website www.micropakltd.com for details.

ON-SITE TRAINING

Micro-Pak technicians will be available to visit factories to provide specific on-site training for mold prevention issues. This can be extremely useful considering the varying standards and facilities found in factories. For example some factories may need to focus on one or two specific areas whereas others may require an in-depth reorganization. There may also be cases where a factory is producing a very unique construction or perhaps components only and in these situations detailed on-site work could be very valuable.

REGULARLY SCHEDULED FACTORY AUDITS

Micro-Pak technicians will conduct regularly scheduled mold prevention analysis of all manufacturing facilities. These audits will cover all areas of the factory and be carried out according to the Micro-Pak Primary Points Checklist (which includes over 100 points) giving each factory a specific score. This score will also be mentioned on any reanalysis so that it will be easy to see the improvement (or lack of) in each case. The Primary Points Checklist can also be used by the factories as a learning tool so that the factories can make necessary improvements for mold prevention.

Micro-Pak has also developed several customer specific checklists adding special requirements made by different customers.

FACTORY ANALYSIS REPORTING

For each factory analysis Micro-Pak will issue a detailed report of our findings and recommendations. The report (average 20 pages) will include the original checklist with all answers, the factory score as well as previous scores, the technician's comments and recommendations, mold swab details as well as photos.

CORRECTIVE ACTION PLAN DEVELOPMENT (CAP)

While the analysis is focused on fact-finding what is most important is for the factory to eliminate any shortcomings. To assist with this process Micro-Pak will develop a Corrective Action Plan (CAP) for the factory based on the results of the analysis. The CAP will specify the problems found and ask the factory for their plan for corrections with details of when the corrections will be completed and who will be responsible for ensuring that the corrections are carried out. This will be far more effective than just having the factory reply in an e-mail “we will improve for the future”.

FACTORY FOLLOW UP FOR CORRECTIVE ACTION PLAN (CAP) COMPLETION

Micro-Pak will follow up with the factory to get the completed CAP and work with the factory to assist with any questions or problems they may have. It is important to note that all suggestions made by Micro-Pak are based on practical situations. Our technical team is from the production side of the business so we will never ask a factory to do something that is not workable.

ONGOING FACTORY ANALYSIS PROGRAM

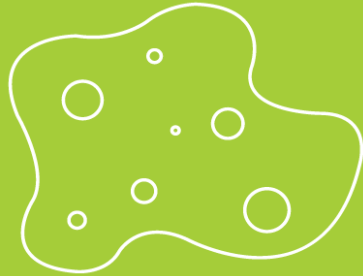
Depending on the scheduling worked out with the customer Micro-Pak technicians will perform reanalysis on a regular basis (monthly, quarterly or seasonally). During these reanalysis we will review the CAP as well as revisit all areas of the factory per our standard procedures.

EXECUTIVE SUMMARIES

For customers who have requested large scale factory analysis Micro-Pak can issue an executive summary on a regular basis detailing the number of analysis carried out, average scores per month, most problematic factories (with open pair details) as well as other information per the customer’s request. These summaries can be extremely useful as the customer can then focus on factories with the most pair still to produce.

DATABASE ANALYTICS

Due to the large number of audits that Micro-Pak carries out (presently more than 1,500 per year) we have a significant database which can be useful in ranking suppliers in terms of mold prevention as well as reviewing a factory’s history of their efforts in this area.



MOLD CASE STUDY

Despite everyone's best efforts products may still arrive at their destination with mold. In such a situation Micro-Pak has the following procedure:

SAMPLE ANALYSIS

The first step is for the Micro-Pak technicians to gather detailed information on the case and then to perform a sample analysis on the moldy merchandise. This will involve both a physical inspection as well as sampling for mold spores. Outside laboratories may be consulted for more detailed questions. This analysis will serve as the basis of the study.

FACTORY AUDIT

After the sample analysis is complete, and with a full understanding of the problem, the Micro-Pak technicians will conduct a detailed factory audit looking for specific shortcomings in the factory that resulted in the mold problem. The technicians will follow the Micro-Pak factory audit protocol and use a variety of sophisticated technical tools during the investigation.

CONCLUSION AND CORRECTIVE ACTION PLAN RECOMMENDATIONS

After completing the investigation, the Micro-Pak technical team will summarize the information gathered in both the sample analysis and factory audit with a conclusion on the key issues that may have led to the problem. Micro-Pak will also offer a corrective action plan to avoid any reoccurrences.

SUSTAINABILITY



Restricted Substances Compliance, Cradle to Cradle

OVERVIEW

Micro-Pak made a significant commitment to improve environmental performance when we launched our sustainability initiative in 2010, with a mission to genuinely and systematically eliminate any negative environmental impacts of our business. So far, we have determined the impacts of our products, developed a comprehensive plan to improve and added resources to help. We have achieved this through our Cradle to Cradle Certified™ Silver level, Material iQ, Life Cycle Assessment and participation in the Higgs Index.

RESTRICTED SUBSTANCES COMPLIANCE

Micro-Pak pays particular attention to restricted substance issues and regularly conducts tests in a variety of third party labs to ensure our compliance with both the law and also our customers' specific policies.

Micro-Pak® products are in full compliance with the REACH restrictions on Substances of Very High Concern (SVHC) and are additionally compliant with Proposition 65, Washington State's Chemicals of High Concern to Children (CHCC), the American Apparel and Footwear Association (AAFA) and SATRA's list of restricted substances.

CRADLE TO CRADLE

As part of our ongoing sustainability commitment, Micro-Pak has achieved Cradle to Cradle Certified™ Silver level (Version 2.1) for all of our products. This rigorous third party process evaluates the environmental impacts of each and every ingredient that goes into Micro-Pak® Stickers and PE Sheets.

The Cradle to Cradle assessment takes a comprehensive approach, examining product design and manufacturing, including site visits to the manufacturing facilities where our products are made. And because each product is re-certified annually, it reflects our commitment to continuous improvement.

Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute

REGULATORY COMPLIANCE

FIFRA, REACH and BPR

EPA

Anti-microbial products distributed in the United States, either directly or as part of secondary packaging, are regulated by the Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Micro-Pak® products are fully registered with the EPA as well as all fifty states including California. This registration process covers both safety and efficacy.

BPR

Anti-microbial products distributed in the EU, either directly or as part of secondary packaging, as well as biocides used to treat articles outside of the EU are subject to registration under the new Biocidal Products Regulation (BPR). The BPR came into effect on September 1, 2013 with a three-year transition period for treated articles. Micro-Pak is in the process of registration and will be fully compliant well before the conclusion of the transition period.

REACH

REACH is an important and far reaching regulation in the EU wherein importers of chemicals or preparations are obligated to report those imports to the REACH authorities. This includes desiccants such as silica gel and other similar products.

Micro-Pak Europe BV has been appointed by Micro-Pak Ltd. as Only Representative (OR) according to Article 8 of the Regulation (EC) No.1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning REACH.

In case you require coverage for Micro-Pak® products that you have imported, please contact the OR Micro-Pak Europe BV and provide details on the annually imported volume of Micro-Pak® products as listed above.

CLP

The Classification, Labelling and Packaging Regulation (CLP) ensures that the hazards presented by chemicals are clearly communicated to workers and consumers in the European Union through classification and labelling of chemicals. Micro-Pak can assist in ensuring that you are fully compliant with this regulation.

COUNTERFEIT PROTECTION

Unfortunately, there are considerable quantities of counterfeit Micro-Pak® Stickers and PE Sheets on the market. These fakes, which look like our products and have illegal copies of our trademark, do not contain our technology, will do nothing to protect your products and may contain toxic substances. When factories use counterfeits you are not getting what you paid for.

You may also end up with harmful substances in your products and find yourself in violation of restricted substance regulations resulting in major recalls and penalties.



For further information about how you can stop counterfeiters please contact info@micropakltd.com or stopfakes@micropakltd.com



AUTHORIZED DISTRIBUTORS



The best way to avoid counterfeits is to purchase Micro-Pak® products directly from Micro-Pak Ltd. in Hong Kong or from any of our more than thirty authorized distributors around the world. If a factory purchases Micro-Pak® Stickers or PE Sheets from anywhere else this means they will be getting counterfeit products. For a complete list of our authorized distributors please visit our website www.micropakltd.com



COUNTERFEIT PROTECTION



We have added sophisticated overt and covert security features in our stickers and sheets enabling our security team to unquestionably determine the authenticity of stickers or sheets. We have also developed Security Cards where you can take stickers and sheets from your merchandise and send them to Micro-Pak for checking. We will issue a written report usually within one day after receiving your samples.



PENALTIES



One of the most effective tools to ensure that you receive only genuine goods is to penalize your suppliers if they use counterfeits. Micro-Pak can work with you on developing this kind of program.



LEGAL ACTION



Micro-Pak is continually taking legal action against suppliers of counterfeit products. With your support through sending us samples for checking and penalizing suppliers using counterfeit products we can eliminate the use of fakes.

DISTRIBUTORS



For ordering Micro-Pak products please contact Micro-Pak Hong Kong info@micropakltd.com or any of our authorized distributors around the world. You may also contact Micro-Pak USA usinfo@micropakltd.com or Micro-Pak Europe europaefinfo@micropakltd.com for further assistance.

DISTRIBUTORS



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For complete contact information go to
www.micropakltd.com .

CATALOGUE

Micro-Pak® Stickers



GREEN



WHITE



BLUE



COMPASS BLUE



YELLOW



ORANGE



RED



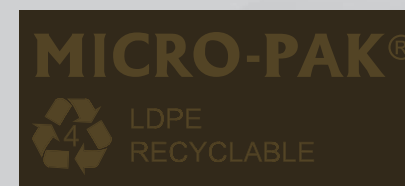
MAROON



GOLD



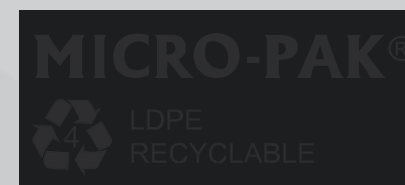
KRAFT



BROWN



GREY

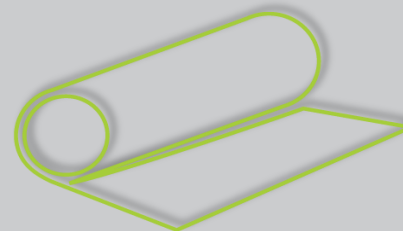
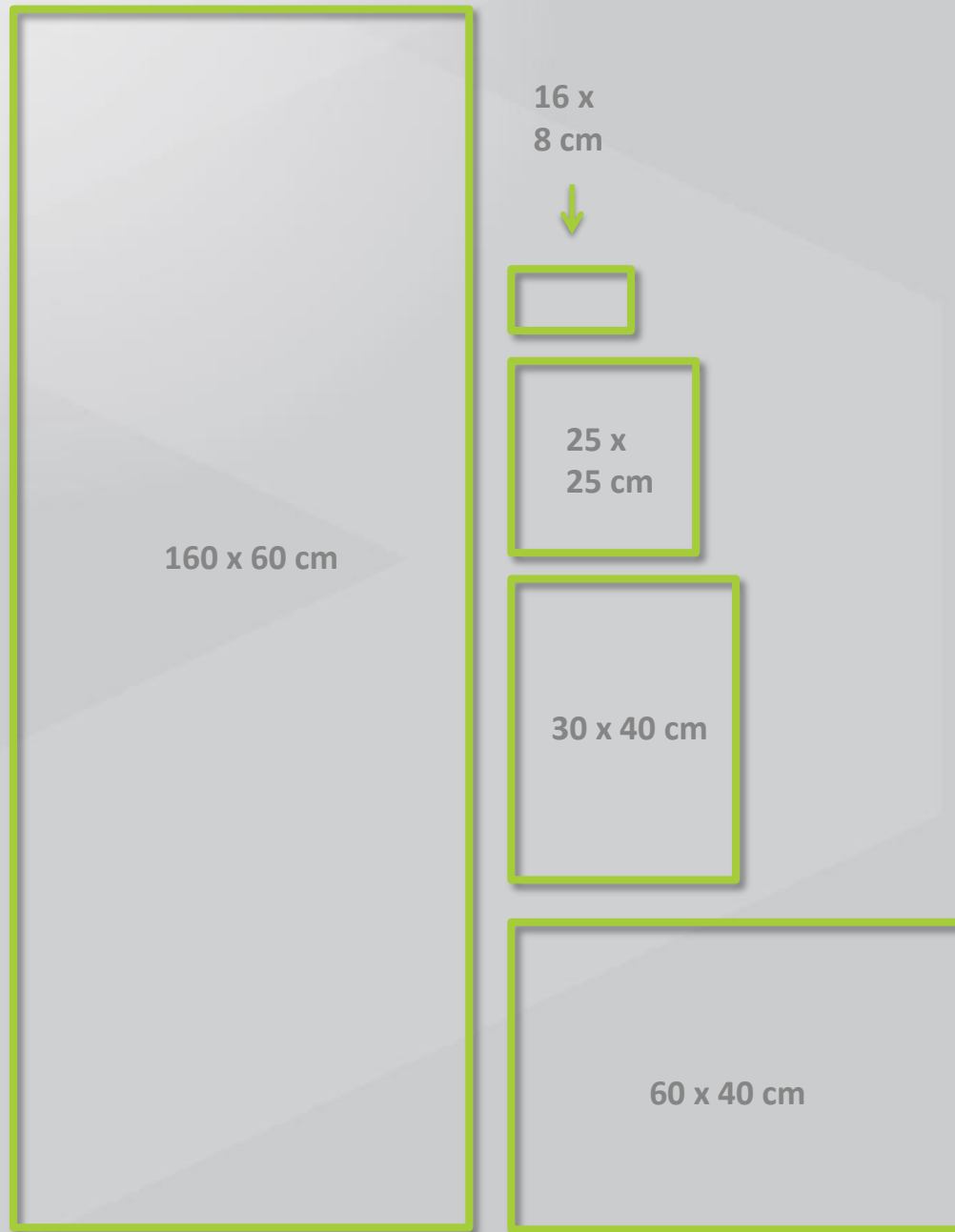


BLACK

CATALOGUE

Micro-Pak® PE Sheets

- 16 x 8 cm
- 25 x 25 cm
- 30 x 40 cm
- 60 x 40 cm
- 160 x 60 cm





MICRO-PAK®

Mold Prevention from Factory to Retail

www.micropakltd.com

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