

INTEGRATED VINYL SOLUTIONS



**KEM ONE**

COMMITTED TO BE  
UNIQUE

# COMMITMENT

the  
client  
at  
the center

# TRANSPARENCY

# LISTENING



A. Gary Klesch  
Chief Executive Officer

With its impressive know-how as a long-standing player in the fields of chlorochemicals and vinyl products in Europe, the KEM ONE Group, created in July 2012, has solid foundations which enable it to look to the future with enthusiasm.

With teams recognised for their expertise, an integrated approach to safety over the whole range of our activities, and our quality industrial resources, our new company will take full advantage of our independence to build partnerships with our clients, reinforce the performance of our facilities by investing in the most modern technology and widen our offer to our clients.

KEM ONE is a business on a human scale fully committed to the satisfaction of its clients, founded on the desire to bring them integrated solutions which will improve their performance.

We have therefore chosen working methods which will allow us to optimise our reactivity, guarantee the reliability of our service and take into account sustainable development issues, bringing you at the same time innovative solutions for any new applications you are developing.

Whatever your project, we will work with you in total transparency, for as long as it takes, to support you in your quest for performance.

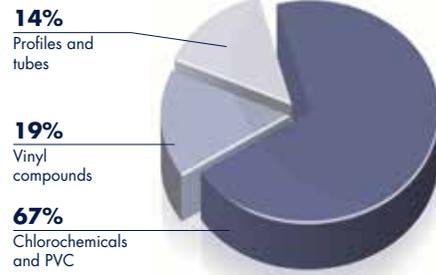
More than just a supplier, KEM ONE hopes to be a real partner for you, listening attentively to your needs and ambitions.

## Content

- **Learn all about us: KEM ONE in facts and figures** p. 3
- **All under the same roof, a concentration of expertise** p. 4
- **Inventing solutions just for you** p. 7
- **There, where you need us** p. 8
- **Our size means we can better meet your expectations** p. 10
- **Committed to health, safety and protection of the environment** p. 12
- **Built on people** p. 14
- **Transparency, so we can live together better** p. 15

**A fully integrated leader in the vinyl sector**

2011 turnover: 1.1 billion euros



**22 industrial sites in 10 countries (Headquarter in Lyon, France)**

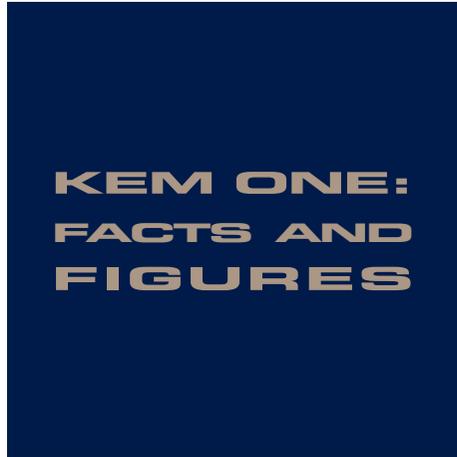
**From chlorochemicals to PVC and to its conversion: a complete range of products**

**Chlorochemicals and PVC**

- Chlorine: 660,000 tonnes/year
- Soda: 730,000 tonnes/year
- Hydrogen: 18,000 tonnes /year
- Bleach: 25,000 tonnes/year
- Chloromethanes: 130,000 tonnes/year
- Hydrogen chloride: 10,000 tonnes/year
- Vinyl chloride monomer (VCM): 870,000 tonnes/year
- PVC (polyvinyl chloride): 870,000 tonnes/year

**Formulation and conversion of PVC**

- Vinyl compounds (PVC and PVC-C): 170,000 tonnes/year
- Profiles: 35,000 tonnes/year
- Tubes: 45,000 tonnes/year



**LEARN ALL ABOUT US**

**2600 experts available and at your service**

France	1780
Germany	230
Italy	190
Spain	100
Croatia	50
Netherlands	40
Outside Europe (China, Japan, Vietnam, Mexico)	210

**Well-known brands**

- PVC:** Lacovyl®, Lucalor®
- Vinyl compounds:** Nakan®, Nakanprène®
- Profiles:** In'Alpha®, Esthéa®, Espace Clair®, Alphalux®
- Tubes:** Bipeau®

*KEM ONE's business stretches from the extraction of salt and the production of chlorine, soda and their derivatives, to the manufacture of PVC (polyvinyl chloride), its formulation into highly technical vinyl compounds and its conversion into tubes and profiles.*

## **Chlorochemicals: products close to our daily life**

Our Group uses salt as a feedstock to produce chlorine, soda and hydrogen, which are in turn transformed into hydrochloric acid and bleach (sodium hypochlorite). Chlorine is chiefly used in the production of chloromethanes and PVC. Apart from bleach, which is a finished product marketed directly to the end consumer, the other products, especially soda, are used as intermediaries in markets such as



## ALL UNDER THE SAME ROOF, A CONCENTRATION OF EXPERTISE

the manufacture of aluminium, cellulose, paper pulp or soap, as well as in the treatment of water.

Chloromethanes are synthesis agents used in sectors such as pharmacy and agriculture. They are also used as precursors of the whole chain of fluorides, for applications such as photovoltaic panels.

### **PVC: limitless creativity**

Produced from salt and ethylene, PVC has every advantage: it is light, robust, and fire resistant, with remarkable plasticity and durability. It is also impermeable, rot-proof and unaffected by extremes of climate. Most importantly, it is 100% recyclable. With so many qualities it is unsurprising that it is used in a diverse variety of fields.

Products manufactured by KEM ONE help to make our lives easier and safer. They can even make lives more beautiful as, following the lead of famous designers, many creators are attracted by PVC's exceptional qualities ...

Garden furniture, medicine containers, cosmetic products, car equipment, decorative objects and security equipment, cables and pipes, credit cards, packaging, toys and, especially, products for use in the construction industry...No field is outside the range of this astonishing material!

# HOW

## Three main families of resins

Our Group produces three principal types of resins, using patented procedures, the result of our research and development. Each type of resin lends itself to particular applications:

### PVC mass and suspension

These 'general purpose' resins are manufactured according to two distinct technologies: 'mass' polymerisation (M-PVC) and suspension polymerisation (S-PVC).

With these resins, the finished products may be flexible or rigid, transparent or opaque, but also insulating, light, robust, age-resistant, inert, impermeable, self-extinguishing, and easy to maintain. Their characteristics make them suitable for a wide range of uses: profiles for windows, tubes, rigid or flexible films, technical profiles, cable channels, shutters, cables, hosepipes, etc. in business sectors such as construction, packaging, paramedical and health (for example for blood or serum bags and catheters).

### PVC emulsion

These PVCs, also known as 'paste PVC' are produced using a process of emulsion or micro-suspension. They are used for the manufacture of floor and wall coverings, synthetic leather, mastic for the automotive and construction sectors, toys, gloves, etc.

### PVC-C

PVC-C is post-chlorinated polymer obtained by the addition of chlorine to base PVC resin. It acquires excellent thermo-mechanical performance, chemical resistance and fire resistance. Because of these properties, PVC-C is mainly used in pipes for hot water, where it replaces copper-based pipes to great advantage.

## Hi-tech specialities

80% of the 870,000 tonnes of PVC produced annually by our Group are marketed to plastics transformers. The remaining 20% are formulated and converted by our subsidiaries into specialities with high added value, requiring a high level of technical expertise:

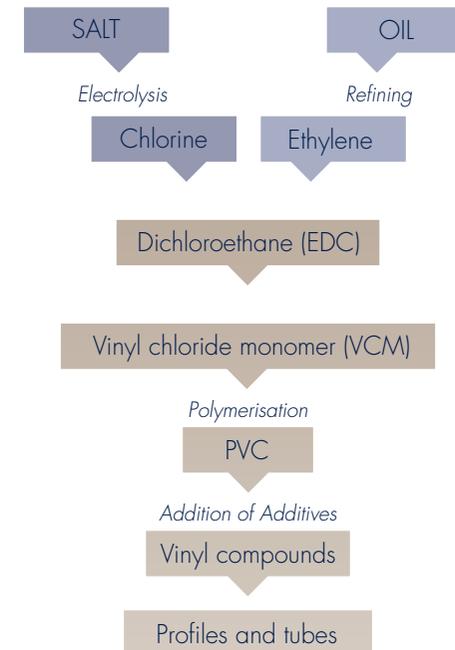
**Vinyl compounds:** following the example of Resinoplast, our subsidiaries are specialised in the production of ready-to-use vinyl compounds produced by adding different types of additive to the PVC (stabilisers, lubricants, weight, pigments, plasticizers, modifiers, etc.), depending on the intended use of the material. The great variety of possible formulations makes it possible to obtain products varying from extremely rigid to extremely flexible, which meet the needs of many sectors of application: automobile, construction, furnishings, electrical, packaging, paramedical, health, industrial equipment.

**Profiles and tubes:** using PVC resin and additives, Alphacan produces profiles for windows and shutters, as well as pipes. The innovative In'Alpha range combines thermal and acoustic performance with lighter profiles thanks to the addition of foam and the incorporation of fibreglass retaining rings. With new colours, particularly appreciated by our clients, these new materials now have an even better appearance.

## KEM ONE's integrated vinyl chain

Chlorine produced from the electrolysis of salt is used either to make chloromethanes or reacted with ethylene (produced by oil refining then steam cracking) to form dichloroethane (EDC), which is in turn used to produce vinyl chlorine monomer (VCM) and hydrochloric acid. Finally, the polymerisation of the VCM (a chemical reaction in which the molecules join on to each other to form a long chain) results in the formation of PVC.

## From the electrolysis of salt to the conversion of PVC: a totally integrated field of activity



**KEM ONE:  
TAILOR-MADE  
SOLUTIONS  
FOR UTILITY  
PRODUCTS**





*Improving existing products and processes and developing, in collaboration with our clients, new 'tailor-made' vinyl solutions for innovative applications - these are the main aims of our research and development activities, one of the driving forces of our growth, and your performance.*

Because there is strength in numbers we will leave no stone unturned to help you innovate.

Every day, in the field, our commercial teams listen carefully to all of your requirements.

Our researchers and engineers at every stage of our integrated supply chain pool their respective expertise to work together on your projects, to create with you - and, if necessary, with your partners - the global solution to your requirements.

This collaborative and innovative approach, bringing together experts from a variety of fields, is unique in the vinyl industry. We firmly believe that it is the only feasible way to support you effectively in your quest for performance.



# CUSTOM-TAIL

## Powerful development tools at your service

By calling on our Group's innovative skills, you will benefit from our rich and powerful R&D resources. Our Group collaborates with major university laboratories and can call on the skills of more than 75 researchers spread over our French sites:

■ **Two laboratories for plastic applications**, situated respectively in Saint-Fons (Rhône) and Saint-Auban (Alpes-de-Haute-Provence)

■ **A research team**, based near our Head Office in Lyon (Rhône), dedicated to the improvement and development of the KEM ONE group's processes (electrolysis of chlorine-soda, syntheses of EDC, VCM, chloromethanes and PVC) and to the development of next-generation PVC.

■ **A unit located on the site of our subsidiary Resinoplast**, in Reims (Marne), supported by small R&D teams spread over the subsidiary sites throughout the business, whose work is focussed on the development of new vinyl compounds.

## Our expertise in liquid chlorine

Delivering liquid chlorine to our clients in complete safety is one of the skills of KEM ONE's core business. Using our expertise, we can manage the whole of the logistics chain, from manufacture to packaging, transport and delivery to the client.

## A quality process guaranteed by all

At KEM ONE, quality is everyone's business. Each of our sites is certified ISO 9001 version 2008, which guarantees the consistent quality of our activities. They are all equally committed to programmes of continuous improvement, based on progress plans linked to precise objectives and concrete actions, whose results are regularly evaluated.

Our control laboratories play an important role in this area. As well as analysing the raw material and production, they help, in collaboration with our manufacturing services, to improve our procedures and products.

The manufacture of compounds destined for use in the automotive industry is certified ISO TS 16949 and that of compounds for medical applications is certified ISO 13485.

The Alphacan plants have a CSTB (french Scientific and Building Technical Center) certificate for the manufacture of the whole range of window profiles.

**KEM ONE:  
R&D  
AND QUALITY  
AT THE HEART  
OF OUR  
APPROACH**

# INVENTING SOLUTIONS JUST FOR YOU

■ **A profile development team attached to the business of our subsidiary Alphacan**, based at Gaillac (Tarn).

Our research and development and technical assistance teams further reinforce this dynamic striving to perfect technologies and products that are ever more adapted to the demands of our clientele and issues raised by sustainable development.

KEM ONE thus guarantees to each of its clients a supply of materials and components of consistent quality, which are ever easier and safer to use.



**ORED**

*In addition to our industrial-leading know-how, KEM ONE is also never far away, with sites located in France, in Southern Europe – particularly in the Mediterranean – and also in Asia and in North America.*

Our group was founded in the south-east of France. Our future is firmly fixed there, with our headquarters in Lyon, as well as several production and research sites throughout the region.



## THERE, WHERE YOU NEED US

### **A strong base in Southern Europe**

KEM ONE's two main polyvinyl chloride (PVC) production sites are in the Rhône-Alpes region – in Balan and in Saint-Fons – as well as on two research and development laboratories: in Saint-Fons, and in Lyon (Rhône).

The other chlorochemical and PVC production plants are all located in the Provence-Alpes-Côte d'Azur region: in the Gard area (Vauvert site),

in the Bouches-du-Rhône area (Fos-sur-Mer, Berre and Lavéra) and in the Alpes-de-Haute-Provence area (Saint-Auban).

The production unit based in Spain, in Hernani, completes the base in Southern Europe for our chlorochemical and PVC business, giving us a strong presence in the Mediterranean area.

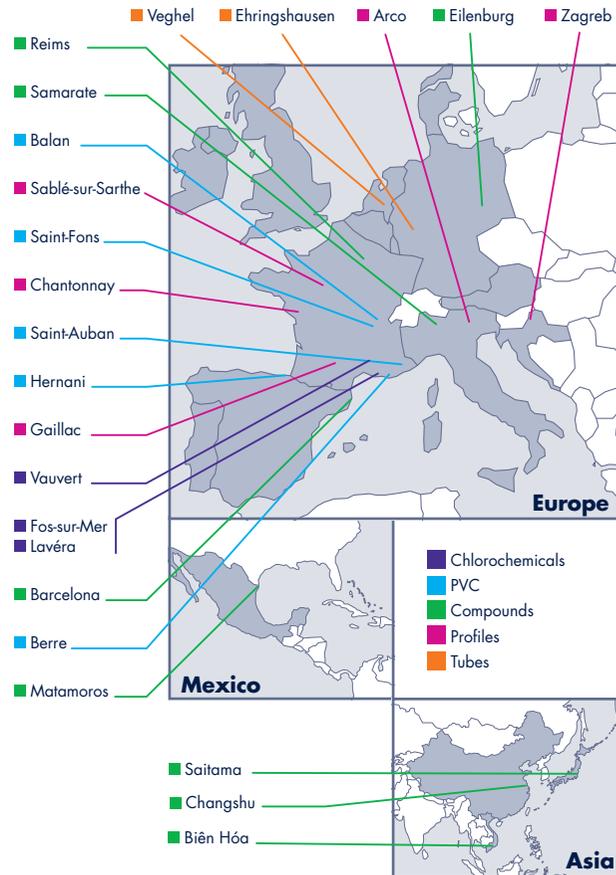
# SENCE

## Formulation and transformation of PVC: a global presence

KEM ONE is also extending its knowledge throughout Europe, particularly in its production of compounds (PVC formulations), profiles and pipes. Moreover, we are expanding on the other side of the Atlantic and in Asia.

The production of vinyl compounds, by our subsidiary KEM ONE Innovative Vinyls, and its various manufacturing units, is divided between France (Reims), Germany (Eilenburg), Spain (Barcelona), Italy (Samarate: medical sector), as well as in China (Changshu), Japan (Saitama: PVC stabilizers), Vietnam (Biên Hòa) and Mexico (Matamoros).

Our subsidiary Alphacan, specialist in the production of PVC profiles and tubes, has its headquarters in Gaillac (Tarn, France), with further sites in France (Chantonnay, Gaillac, Sablé-sur-Sarthe) as well in Germany (Ehringhausen), Italy (Arco), Croatia (Zagreb) and in the Netherlands (Veghel).



**KEM ONE:  
POWER AND  
PROXIMITY  
TO HELP YOU  
PROGRESS**



*With nearly 100 years' experience in chlorochemicals, and more than 70 in vinyl products, KEM ONE has now become part of the Klesch Group, one of Europe's leading operators of industrial and commodity-related business.*

KEM ONE is already one of the big names in chlorochemicals and vinyl solutions. With a turnover of more than a billion Euros, we are the third largest PVC producer in Europe.

### **A business always innovating**

Building on our integration in the chlorine sector and driven by renewed momentum, we are now looking to new horizons, with you, to establish ourselves as a leader throughout Southern Europe and the Mediterranean.

Our two main business areas – chlorochemicals and PVC – will benefit from a dedicated commercial strategy.

Our effects will focus in particular on building an even stronger and more innovative downstream sector, through the development of new vinyl solutions with significant added value, boosting our performance as well as that of our customers.

### **Investing to provide you with a better service**

To face these challenges, our group can count on the expertise of its teams and the quality of its industrial and commercial assets, but we also intend to go even further...

In order to support our new ambitions we are initiating a policy of dynamic investment, with a view to upgrading our manufacturing and developing highly profitable specialities. Over the next five years, 400 million Euros will therefore be invested in our installations, to enable us to provide you with a better service.

### **The Klesch group**

Founded in 1990 and headquartered in Geneva, the family-owned Klesch Group is one of Europe's leading operators of industrial and commodity-related businesses. With combined revenue in excess of 5 billion euros, the Klesch Group employs more than 4,500 people across 40 locations in over 16 countries around the world.

**KEM ONE:  
400 MILLION  
EUROS TO  
BE INVESTED BY  
2017**

**OUR SIZE MEANS WE CAN BETTER  
MEET YOUR EXPECTATIONS**

### **Setting the course: our Executive Committee**

**A. Gary Klesch**  
Chief Executive Officer

**Frédéric Chalmin**  
Operations

**Bertrand Jausseme**  
Marketing and Sales

**René Maillot**  
Innovative Vinyls

**Didier Le Vely**  
General Secretariat

**Nick Dekker**  
Finance





# COMMIT

*KEM ONE is not only a high-performing and innovative group, serving its customers, but also a responsible industrial player, perfectly integrated for the long-term in its locations. This commitment is reflected in the importance that the group places on health, safety and respect for the environment.*

Our health, safety and the protection of the environment strategy applies to the entire range of our activities and to each phase in the life cycle of our products. It focuses on identifying and precisely evaluating dangers and risks not only during their design, production and transport, but also during their use and their recycling at the end of their life. Our policy of continuing improvement, based on an integrated system to manage health, safety, quality and the environment involves all our employees on all of our sites. This approach is recognised in the certifications ISO 9001, ISO 14001 and OHSAS 18001 obtained by our chlorochemical and PVC sites.

## Safety always in mind

KEM ONE considers safety to be an inherent condition in professional activity. On each one of our sites our Hygiene, Safety and Environment (HSE) services coordinate the implementation of our safety policy. Preventive action, training and improvements in internal safety are carried out daily.

Our French industrial sites producing chlorochemicals and PVC participate in regular information campaigns for the local residents as well as gathering and sharing information with elected representatives, manufacturers, employees, local residents and public sector services.

## Protection of the environment: Above and beyond our obligations

Following precise procedures, all our plants identify the most significant impacts that their activity could have on the environment: water (aqueous waste and water abstraction), atmospheric emissions, sound, waste, etc. They are all rigorously evaluated and studied. Each year, based on this detailed analysis, they identify key areas for improvement and regularly measure the level of progress made, in order to define new objectives.

## COMMITTED TO HEALTH, SAFETY AND THE PROTECTION OF THE ENVIRONMENT

As part of our policy of transparency we are also committed to informing these same local parties as quickly as possible in the event of significant safety and environmental incident at one of our establishments in accordance with the industry's 'real-time' communication policy.



**KEM ONE:  
2,600  
EMPLOYEES  
SHARING  
THE SAME  
VALUES**

MENT



***Our success lies in the daily motivation the men and women who work for our Group, our lifeblood.***

***With 2,600 employees covering an extremely wide range of skills, KEM ONE recruits at all levels of qualifications. This richness is further reinforced by the diversity of profiles, experience and background of our entire workforce.***

***Training plays an important part of our Group's human resources policy as we strive to constantly improve our teams' know-how.***

The range of professions represented on our sites is large: manufacturing and logistics operators, maintenance technicians (electricians, mechanics, etc.), engineers and chemical researchers and process engineers, IT personnel, support and safety functions, etc.

In each of the regions where we have a presence, our group is a major economic and social player: in addition to our own workforce for the local population, our business provides employment for more than 5,000 people.

Our human resources strategy aims first and foremost to be involved in and anticipate technological progress while guaranteeing the quality, safety and management of the environmental impact of our activities.

It also concentrates on stimulating personal and professional development of our entire workforce. Our training policy is therefore ambitious and adapted to each individual, and forms a significant part of our annual payroll.

Furthermore, we are also committed to recruiting young people into the industrial sector and we are actively involved in work-based training and apprenticeships, and hosting trainees.

Our group is also committed to the integration of those with a disability: respecting diversity and equality form part of our core values.



## BUILT ON PEOPLE

### **Always striving to do better**

KEM ONE adheres to the *Responsible Care*<sup>®</sup> initiative of the French Chemical Industries Association (UIC). In so doing, our group is committed to regular performance improvement in safety, health protection and environmental matters, as well as to the modernisation and refurbishment of its sites.



*Listening, commitment, transparency: these values guide each one of our activities and are perfectly illustrated by our community relations initiatives.*

KEM ONE maintains a permanent dialogue with their plants' local communities, as better mutual understanding helps, in our eyes, to ensure long-term trust.

We regularly meet with local residents' associations, elected officials and representatives from education, focusing not only on explaining our group's activities, our professions and our products, but also on safety, the management of risks and preservation of the environment.

### **Recycling of PVC: KEM ONE is involved**

As part of their determination to fully meet the requirements of sustainable development, KEM ONE adheres to the Vinyl Plus programme, a voluntary commitment for PVC manufacturers, concerned in particular with recycling.

In the same spirit, KEM ONE has chosen to join to the 'Association Autovinyle', which aims to develop an efficient recycling sector for soft PVC waste from the automotive industry.



## TRANSPARENCY, SO WE CAN LIVE TOGETHER BETTER

Each of our plants regularly opens their doors and develops diverse and fruitful contacts by participating in many local and regional events: exhibitions, professional conferences, public meetings, educational demonstrations...

In this same spirit of openness, our group supports initiatives from academic establishments and local sporting or environmental associations, with whom a long-term relationship has been started.



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