

 **IMPER** ITALIA



The enterprise and its organization

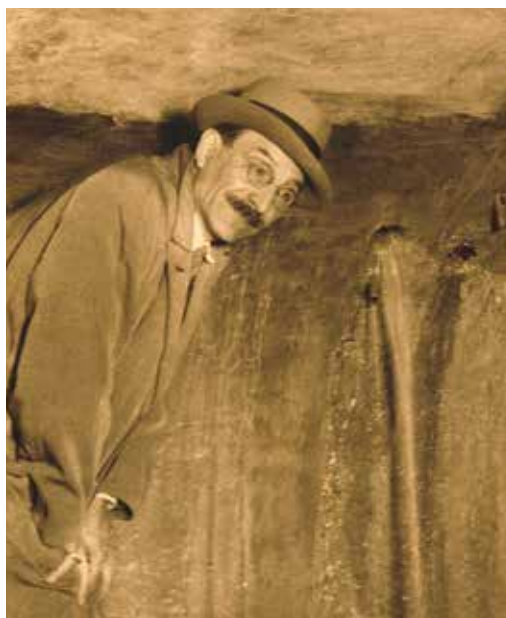




Contents

Almost a century of experience	5
... 1936 - The origins	5
... THE '50s - The patented PASTA IMPER membrane	5
... THE '60s - PARALON, prefabricated distilled bitumen-polymer membrane	7
... THE '80s - RHEN ITALIANA, an expanded presence in construction retail outlets	7
... THE '90s - SINTOFOIL, the innovative, environmentally-friendly prefabricated synthetic membrane	7
... THE 21 st CENTURY - DATAQUAD, a unique software tool for designers and installers	8
... THE 21 st CENTURY - The RUBBERSOLAR line of photovoltaic waterproofing membranes	9
The IMPER Group becomes part of the TECHNINICOL Galaxy	9
The TECHNINICOL Group's manufacturing capacity	9
The EURODUCE merger	9
Mission, Organization, Certifications	11
PROBLEM SOLVING AND CUSTOMER SATISFACTION	11
ROOFING MANAGEMENT PROGRAM	11
SALES ORGANIZATION	12
TECHNICAL ASSISTANCE	13
MAPPANO TRAINING CENTER	13
SYSTEM AND PRODUCT CERTIFICATION	15
GBC - GREEN BUILDING COUNCIL	17
The three Divisions	19
• IMPER Division	21
Excellent references	21
• RUBBERFUSE Division	23
TPO/FPA Line	23
PVC-P Line	25
Tunnels and below-grade structures	25
RUBBERSOLAR Line	27
AUTOMOTIVE Line	27
• RHEN EDILIZIA Division	29
Products	29





Almost a century of experience

... 1936 The origins

IMPER ITALIA S.p.A. was established in 1936 under the name of Imper S.a.S. of Alfredo Schieroni & Son, to manufacture water repellants, sealants and bitumen emulsions for waterproofing roofings, foundations water reservoirs, dams, canals, etc. Subsequently, the Company expanded into special-purpose coatings to meet increased market demand for corrosion-proofing large reinforced concrete and steel structures, including viaducts, tanks, penstocks, metal constructions). This was followed by the production of formulations for protecting, maintaining and refurbishing concrete structures.

... THE '50s The patented **PASTA IMPER** membrane

After the Second World War the Company developed products and systems which were innovative for that period, conceiving and patenting **PASTA IMPER**, a cold-applied bitumen emulsion multilayer system, and **MULTIHOLES**, a semiadhesive perforated felt fiberboard felt waterproofing system preventing roof fissures from affecting the waterproofing layers above. Such solution replaced the conventional oxidized bitumen and bitumen impregnated fiberboard multilayer waterproofing system Kettles and heated bitumen on roofing, involving safety problems for operators and poor performance.



... THE '60s

PARALON, prefabricated distillate-polymer bitumen membrane

The traditional multilayer system was finally abandoned in the mid-'60s with the arrival of prefabricated glass fiber reinforced **distillate-polymer bitumen** membranes.

In the second half of the '60 IMPER ITALIA started industrial scale production of PARALON, prefabricated bitumenpolymer waterproofing membrane by modifying the bitumen with polypropylene polymers (APP atactic polypropylene).

This revolutionary waterproofing "system", the result of Italian creativity, gave significant impulse to Company growth and its quest for quality.

IMPER ITALIA was in fact the first Italian Company to be awarded in 1978 the certificate of technical approval (Agrément) ICITE (CNR), now ITC, for PARALON NT4; subsequently extended to the other countries members of UEAtc (Union Européenne pour l'Agrément technique dans la construction).

From 2003 IMPER ITALIA went on to receive, first in Italy, the ITC Agrément for the product families PARALON Plus and PARALON Fire, as proof that this product, sold over the years in volumes of more than 60 million square meters, was unequalled in terms of safety, life, innovation and exclusivity.

... THE '80s

RHEN ITALIANA, an expanded presence in construction retail outlets

Late in the '80s IMPER ITALIA, wanting to gain a significant share in "Modern Building Retail", acquired **RHEN ITALIANA S.p.A.** of Brugherio (MILAN), a Company with established know how and sales expertise in this market sector.

In February, 1999, IMPER ITALIA completed a process of production rationalization to incorporate its subsidiary RHEN ITALIANA S.p.A.

The operation brought with it a technical sales network established in building retailing.

... THE '90s

SINTOFOIL, the innovative, environmentally-friendly prefabricated synthetic membrane

Specialization in waterproofing lead the Company to consider also the field of synthetic membranes, endeavoring to offer the market innovative products and solutions for diversified applications.



In the mid-'90s, thanks to the experience built up in bitumens and polymers the Company, in collaboration with Montell, developed **SINTOFOIL**, a synthetic membrane based on a polypropylene elastomer mix (TPO/FPA).

In 2003 IMPER ITALIA also made a significant investment by acquiring a majority share in **EURODUE S.r.l.**, a Company specialized in the production of synthetic sheeting for lining tunnel walls and other hydraulic applications, thereby enhancing its position as a highly specialized and wide ranging operator in the waterproofing sector.

In 2006, strategic positioning studies pointed to the need to focus on technological innovation with a view to developing quality bitumen-distillate-polymer membranes by the IMPER Division and new-generation synthetic membranes by the RUBBERFUSE Division.

Finally, new product development was pursued through trade relationships with national Modern Building Retail, to be promoted by upgrading the RHEN Edilizia organization.

... THE 21st CENTURY **DATAQUAD**, a unique software tool for designers and installers

The year 2000 saw the birth of **DATAQUAD 2000**, the result of extensive experience by the IMPER Division of IMPER ITALIA and their applicator customers.

As yet unparalleled a tool of its kind in Italy, this building designers' and applicators' aid facilitated the implementation of continuous roof waterproofing projects using distillate-polymer bitumen membrane according to specifications, complete with drawings and implementation guidelines (more than 200 available, with image preview) and product specification sheets (updated to 2010). The English version of the DATAQUAD is, for the time being, not available.



... THE 21st CENTURY

The RUBBERSOLAR line of photovoltaic waterproofing membranes

In 2008 IMPER ITALIA entered the field of renewable sources of energy with particular attention to photovoltaic energy, ideally suited to roofing applications. Accordingly, a specific product line, namely **RUBBERSOLAR**[®], was developed, which is characterized by SINTOFOIL PV, an innovative, integrated waterproofing layer obtained by combining amorphous silicon with SINTOFOIL (TPO/FPA) synthetic membrane.

Patent-pending **RUBBERTAC**[®] and **RUBBERFIX**[®] retention systems were developed for use with conventional silicon crystal photovoltaic modules on bitumen or synthetic waterproofing membrane without breaks in waterproofing effectiveness.

The IMPER Group becomes part of the TECHNICONOL Galaxy

The **IMPER Group**, which includes IMPER ITALIA and EURODUE, two of the best-known names in waterproofing for construction and civil engineering applications in Italy and over fifty countries worldwide, markets products and systems manufactured at its facilities in:

- Mappano (Torino) Distilled bitumen and polymer membranes;
- Marano Ticino (Novara) Synthetic TPO and PVC sheeting.

On December 1, 2014 the IMPER Group became part of **TECHNICONOL CONSTRUCTION SYSTEMS**, a major industrial presence on the Russian and Eastern European markets for bitumen-polymer and synthetic waterproofing products as well as bitumen shingles and thermal insulation.

The TECHNICONOL Group's manufacturing capacity

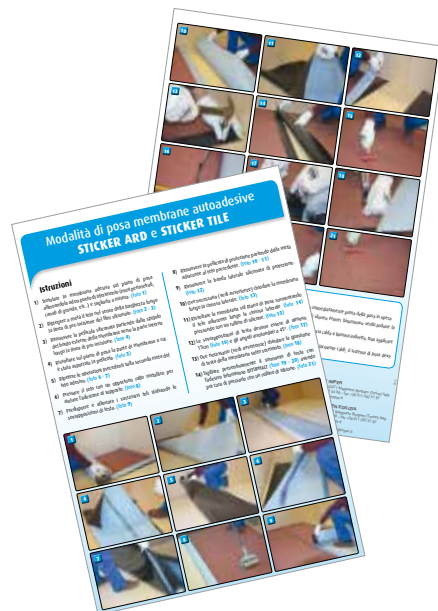
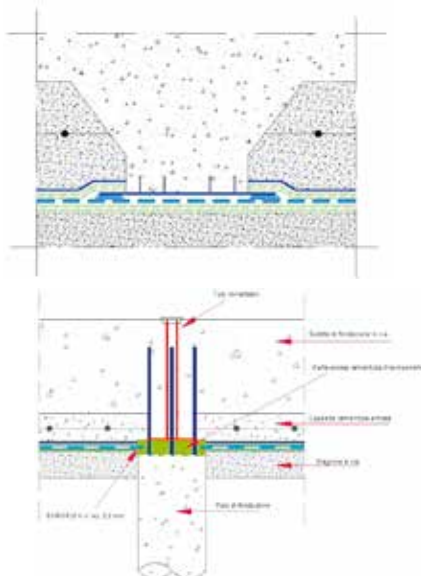
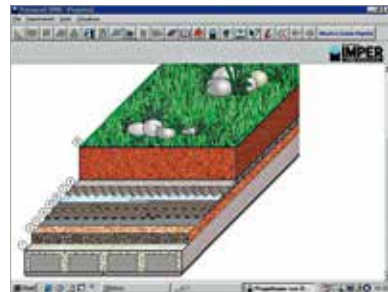
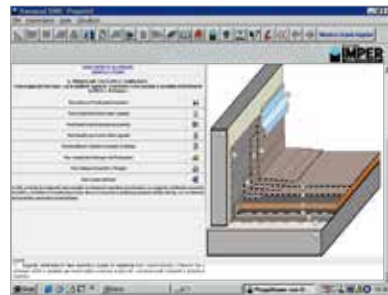
- 48 distilled bitumen and polymer membrane lines = 980,000,000 m²
- 6 bituminous sealant lines = 150,000 metric tons
- 14 rock wool lines = 550,000 metric tons
- 11 expanded polystyrene line = 2,200,000 m³
- 5 synthetic membrane lines = 32,000,000 m²
- 6 bitumen shingle lines = 84,000,000 m²

The EURODUE merger

Effective July 1, 2015, **EURODUE S.r.l.** and its production facility in Marano Ticino (Novara), already part of the Imper Group, merged with IMPER ITALIA. With this operation, IMPER ITALIA acquired the entire capital stock of Eurodue as well as its customer base in Italy and abroad, where the company's business focuses chiefly on PVC-P synthetic waterproofing sheets for tunnels, below-grade structures, foundations, etc.

The merger is part of **IMPER ITALIA'S** effort to increase its presence in the synthetic TPO/FPA and PVC-P sheeting business. This program has been supported by an intensive marketing campaign in Italy and elsewhere, as well as by ramping up output at the Marano Ticino plant.







Mission, Organization, Certifications

PROBLEM SOLVING AND CUSTOMER SATISFACTION

IMPER ITALIA philosophy, intended as the set of essential principles governing its activities, hinges on customer satisfaction, the customer being the end user of the building asset.

IMPER ITALIA's passion for industrial endeavor is one of utmost coherence, focusing on products aimed at increasing the potential for **"problem solving"** in the field of building structure protection, where the concept of waterproofing extends to attack of building structures by aggressive agents of all types, as well as water.



ROOFING MANAGEMENT PROGRAM

In the very light of this vision, IMPER ITALIA – a major supplier of waterproofing products and systems, has long since undertaken to collaborate with leading design establishments and building firms in large engineering projects, paying great attention to prevailing trends and market demand.

In line with this philosophy, the Company has devised the **ROOFING MANAGEMENT PROGRAM**, a service conceived for major accounts and large projects consisting of a new, highly professional integrated approach to customized design and development of leading-edge environment-friendly waterproofing solutions.

SALES ORGANIZATION

To implement this philosophy, the Company was organized to include three Divisions at the service of the Internal Market, as described below:

IMPER Division (Bitumen-base products and systems for professional applications) and **RUBBERFUSE Division** (Synthetic products and systems for professional applications), supported by a technical sales network, serving professional applicators. Both Divisions are in direct contact with specifiers, design engineers, engineering departments of public and private enterprises, building companies and applicators, to identify emerging needs in the internal market. Each of them is supported by a centralized technical assistance function, both pre-procurement and after-sale, and Company warehouses able to stand by professional applicators with advice on products, procedures and built-up waterproofing systems for best results. Outside of Italy, a continually expanding network of specialized dealers covers all of Europe and extends to many countries beyond Europe's borders.

RHEN EDILIZIA Division (Retail products and systems), supported by a technical sales network, caters for modern building retailers. Focusing on co-marketing, the Division provides retailers with hands-on training, to address troubleshooting, product selection and correct product application. A continually expanding specialist dealer network abroad covers European and overseas countries.



TECHNICAL ASSISTANCE

We believe that to achieve customer satisfaction, specialized operators must be given complete information on product and system specifications and applications in the form of **TECHNICAL ASSISTANCE** by our supervisors and specialists, either in the field or at the design stage, in the following:

- applications;
- site visits;
- courses at our Training Center;
- discussions with project design engineers to work out optimum technical proposals for the waterproofing package, using either membrane bitumen-distillate-polymer membranes or synthetic sheeting (TPO/FPA);
- design tools (DATAQUAD or technical documentation).

The laying of the waterproofing system, a crucial stage of the process to ensure quality, must be entrusted to qualified applicators with professional expertise. To this end a decade ago, RUBBERFUSE set up the Training Center where synthetic membrane waterproofing applicator operators are trained free of charge.

On completion of the course, trainees are handed a certificate confirming successful attendance, which entitles qualified personnel to operate in the application of SINTOFOIL membranes. The Training Center also holds demonstrations on the use of bitumen-distillate-polymer (MBDP) membranes and liquid waterproofing products produced by IMPER and RHEN EDILIZIA.

MAPPANO TRAINING CENTER

To meet emerging needs and in response to recommendations from the parent company Technicol, the Mappano Training Center has been completely re-outfitted with the latest equipment and tools for demonstrating application methods for TPO/FPA or PVC-P synthetic sheeting, distilled bitumen-polymer membranes, bituminous shingles, liquid waterproofing materials and the rest of the Imper divisions' product lineup.

The **TRAINING CENTER** was remodeled in Summer 2015, introducing advanced safety and accident prevention techniques, including a modern fume extraction system specifically for the various bituminous shingle application demo areas, displays of all the major products in the Imper range, as well as meeting and conferences rooms for customers and in-house personnel, sized to accommodate a variety of needs.





SYSTEM AND PRODUCT CERTIFICATION

The growth rate posted by IMPER ITALIA from its birth in the '30s to date, is the most tangible proof of recognition by the market.

However, success is a combination of many factors, including also the “agrément” and product/system certifications issued by official institutions.



The IMPER ITALIA quality system is certified by Bureau Veritas, as per ISO 9001, and ISO 18001 for safety management and ISO 14001 for environmental management.



Foremost among them are System Certifications

IMPER ITALIA was initially certified to **ISO 9001 in 1995 by BUREAU VERITAS**. In fact the Company pursues process optimization in the quest for continuous improvement in efficiency, effectiveness and cost reduction also through the adoption of a safety management system to **BS OHSAS 18001:2007**.

In September 2006 IMPER ITALIA secured **CE** product certification as per European Directive 89/106/EEC, Construction Products.

In 2012, the Company obtained certification to **ISO EN 14001**, Environmental Management.

Even more important are the **Agréments and Product Certifications** issued by UEAtc (Union Européenne pour l'Agrément Technique dans la construction) in a number of European countries.

These were followed by other certifications by Institutions of overseas countries including the USA, New Zealand and Japan, as confirmation of the Company's high placement in terms of product quality. Other recognitions/approvals were issued by national majors such as energy group ENEL, railway operator FFSS, the Motorways Authority Società Autostrade, etc.

Thus, authoritative approvals and recognitions underscore the Company's success on the wider markets, as confirmation of the fact that IMPER ITALIA is on the right track for steady, solid and continuous development.

SINTOFOIL engineering polymers will give a “30 YEAR” service life, as recently certified by the B.B.A. (British Board of Agrément) following strict site testing and as confirmed by subsequent laboratory tests.

Moreover, IMPER ITALIA was first in obtaining ATE certification for polyolefin (TPO/FPA) base homogeneous SINTOFOIL ST and for UNOFIX E, a two-layer bitumen distillate polymer system (for applications with mechanical reinforcement).





GBC - GREEN BUILDING COUNCIL



IMPER ITALIA is a member of **GREEN BUILDING COUNCIL ITALY**, an association fostering a sustainable building culture, promoting awareness by public opinion and institutions of the impact building design and construction have on the quality of life of residents and providing building operators with clear reference parameters.



GBC Italy aims to spread and develop **LEED** principles (Leadership in Energy and Environmental Design) in Italy. These are sustainable building parameters developed in the USA and already applied by 41 countries throughout the world aimed at developing “green” building practices.

Quality and expertise - A success story

For over fifteen years, IMPER ITALIA has grown and diversified gradually adapting and widening its know how to develop markets, building relationships with and gaining the trust of leading customers both in Italy and abroad. Product supply and design support in major projects throughout the world are proof of the value placed on the quality and expertise of the two business units.







The three Divisions







IMPER Division

The mission of this Division is to seek business opportunities wherever bitumen and polymer base products may be applied for waterproofing.

The know how in this area of business has been built up during well over half a century of activity.



An exclusive technical sales network monitors the market to identify potential business opportunities for:

- bitumen-polymer prefabricated membranes, for roofing, foundations, hydraulic works, viaducts and special purpose applications;
- bitumen emulsions;
- fluid synthetic waterproofing products;
- bitumen mastics and sealants;
- primers and protective coatings for waterproofing layers;
- thermal insulation products for roofing.

Excellent references

IMPER ITALIA has been producing bitumen-polymer waterproofing membranes since 1966 and is currently a leading supplier in terms of product quality and market share, both nationally and internationally.

This is also proven by the technical approval certificates issued by ITC (ex. ITC - CNR) and by UEAtc (Union Européenne pour l'Agrément Technique dans la construction) members such as: CSTB (France), BBA (United Kingdom), IAB (Eire), BDA-KOMO (Holland), UEAtc (Belgium). Certification was also issued by international institutions including EMI (Hungary), JIS (Japan), BRANZ (New Zealand), Factory Mutual System (USA), Bureau Veritas (France), SOCOTEC (France), QUALICONSULT (France), Laboratoire Central Ponts et Chaussées (France), IGH Zagreb (Croatia).







ISO 9001
ISO 14001
OHSAS 18001
BUREAU VERITAS
Certification



RUBBERFUSE Division

The mission of this Division is to inform the market of the availability of synthetic membranes and to propose effective solutions for waterproofing systems through our Technical Sales-Dealer network in Italy and abroad. Aware of the as yet somewhat exclusive expertise needed for correct application, IMPER ITALIA uses expert applicators to lay the product, providing back-up as necessary. The Training Center supports installers with courses on correct application techniques.

RUBBERFUSE currently offers two lines of synthetic membranes with different polymers, namely:

- **TPO/FPA:** Polypropylene-base elastomeric polyolefin mix
- **PVC-P:** Plasticized PVC compound
- **RUBBERSOLAR:** Photovoltaic modules
- **AUTOMOTIVE:** Occupant compartment lining materials

TPO/FPA Line

Progress in polyolefin macro-molecular chemistry have resulted in the synthesizing of new polymers well suited to waterproofing. In fact, such polymers are already widely tested together with bitumen, by our R&D facility.

By incorporating elastomers in the propylene matrix, we obtained a thermoplastic elastomeric polymer, which gives SINTO-FOIL synthetic membranes peculiar characteristics ideal for waterproofing, including:

- absence of chlorine and other pollutants;
- very high resistance to atmospheric agents and UV radiation;
- anti-rot properties;
- mechanical strength and perforation resistance;
- flexibility and softness, also at low temperature;
- root resistance;
- excellent bondability and repairability throughout the life of the substrate;
- ease of joint inspection;
- total recyclability and eco-friendliness.

SINTOFOIL (TPO/FPA) synthetic membranes have already been certified by Factory Mutual, BBA, EMI, Bureau Veritas, Qualicon-sult, ITC, CSTB, UBAtc, and others.







PVC-P Line

In addition to EUROFLEX and ECOFLEX membranes for waterproofing of tanks and reservoirs, tunnels and underground structures, the range of synthetic membranes also includes a PVC-P line for roof waterproofing (SINTOPLAN). Official approvals and certifications also cover all these products.

The **MARANO TICINO (Novara)** plant features two synthetic PVC membrane manufacturing lines and one polyolefin membrane line.

Tunnels and below-grade structures

IMPER ITALIA is now one of Europe's leading producers of synthetic and bituminous waterproofing products and systems for roofing, water retention applications, tunnels and below-grade structures. Since the 1980s, the Group's materials have been used in natural and manmade road and railway tunnels.

Today, with millions of square meters of **SINTOFOIL** and **EUROFLEX / ECOFLEX** series membranes sold in Italy and countries around the world, the IMPER ITALIA Group is one of Italy's foremost manufacturers of products for major civil engineering applications.

IMPER ITALIA's synthetic waterproofing membranes are designed, formulated and produced to meet specific application requirements, guaranteeing optimum results from all standpoints. Major features of Imper's synthetic membranes for below-grade structures include:

- excellent weldability and ease of installation even in the critical environmental conditions typically encountered when working in tunnels;
- softness and flexibility, ensuring that the membrane can adhere closely to irregular substrates;
- outstanding tensile strength, ultimate elongation, and static and dynamic puncture resistance. These properties are essential for membranes installed under heavy-duty protection or on irregular substrates, and which may have to accommodate substrate shifting or settling;
- excellent resistance to moisture, seawater, chemicals, bacteria, fungi, microorganisms and roots;
- easy quality control during and after application (air pressure testing with double weld seams).







RUBBERSOLAR Line

SINTOFOIL PV - Innovative integrated photovoltaic module

Where applied on top of buildings for roof waterproofing, SINTO-FOIL PV photovoltaic modules, consisting of amorphous silicon photovoltaic laminates bonded to a polyolefin waterproofing membrane, also produce electricity.

Photovoltaic technology enables electricity to be produced by direct conversion of solar energy incident on waterproofed roofing.

Photovoltaic modules are certified to CEI:

- EN 61646 and 61730-1-2;
- TDKi 0409 (Factory Inspection);
- Class 1, Fire retardant (Std. UNI 9177).

RUBBERTAC® and RUBBERFIX®

PV Structure System - RUBBERSOLAR line of accessories for conventional photovoltaic systems, i.e. mono-, poly-crystal or thin-film glass-to-glass) or also services systems and/or roof lightweight equipment, applied to waterproofing layers of various types and newly applied.

RUBBERFIX® system is patent-pending.

AUTOMOTIVE Line

The automotive industry relies heavily on plastics, particularly for protecting car and truck occupant compartments, luggage compartments and load beds.

Our TPO/FPA and PVC-P film and sheeting extrusion lines offer solutions that meet the growing market demand for lightweight, environmentally-friendly products. Technical solutions are developed together with major automotive OEMs as well as directly with carmakers' styling centers.

Our products are integrated solutions for acoustic insulation that are designed to improve and enhance the levels of comfort provided by passenger car occupant compartments and truck cabs. Working with innovative materials and processes enables us to achieve the best tradeoff between product cost and product weight.







RHEN EDILIZIA Division

The mission of this Division is to promptly supply new-generation Building Retail warehouses enabling them to respond in real time to customer demand, for waterproofing and protective coatings, building maintenance and refurbishing products. Backed by a high-capacity servicing structure, the marketing personnel of new-generation Building Retail plant of Mappano, Turin, Italy, effectively handle a comprehensive assortment of problem-solving products through simplified procurement and quick turn-around.

Products

- Adhesives and sealants
- Concrete additives
- Retardants
- Concrete repair malt, dehumidifiers and protective treatments
- Bitumen paste waterproofing systems
- Bitumen paste waterproofing systems
- Cement base water-proofing systems
- Bentonite waterproofing systems
- Protective coatings
- Strengthening straps and reinforcements
- Special-purpose products
- Bitumen primers
- Lightweight bitumen distillate polymer membranes
- Elastomeric polymer bitumen distillate membranes
- Elasto-olefin polymer bitumen distillate membranes
- Elasto-plastic polymer bitumen distillate membranes
- Plastomeric polymer bitumen distillate membranes
- Bitumen distillate polymer membranes for special purpose applications
- Pressure-sensitive adhesive and heat-sensitive adhesive bitumen distillate polymer membranes
- Felt fiberboard
- Breathing roofing sheet
- Sound absorbing systems
- Bonded thermal insulation systems
- Geotextiles and draining systems
- Accessories
- Bituminous shinglas

Handwriting practice area with 30 horizontal dotted lines.

Handwriting practice lines consisting of 30 horizontal dotted lines.

