



YOUR SPECIALIST FOR HIGH-QUALITY
ROAD MARKING SYSTEMS



LIMBURGER LACKFABRIK GMBH is Germany's largest manufacturer of liquid road marking materials and systems. Our modern production site meets the highest environmental standards and is the base for one of the most comprehensive product ranges of the industry. We offer the adequate marking solution for any indoor or outdoor application.

- All types of road marking systems
- Airport marking systems
- Coloured bicycle lane markings
- Markings for indoor applications
- Car park markings
- Escape route markings
- Tactile guidance systems for the blind
- Fluorescent daylight paint systems
- Phosphorescent afterglow systems
- Race track markings
- Coatings for skid surfaces in driver training centres
- Conspicuity markings for obstacles

LIMBURGER LACKFABRIK GMBH

Your reliable partner for
state-of-the-art road marking systems and
all kinds of special markings

Road markings are among the most cost-effective means to keep traffic flowing smoothly and safely. They have to be clearly visible at night and day and in any weather condition.

Road marking systems from LIMBURGER LACKFABRIK GMBH are well proven, of high quality, and tested and homologated by the German Federal Road Institute (BASt).

OUR MARKING SYSTEMS

- are based on proven, high-quality raw materials and sophisticated formulations, ensuring best possible daytime visibility and optimal embedding of drop-on materials.
- offer, thanks to innovative and clean glass bead blends (low index and high index) from SWARCO, the world's second largest manufacturer of reflective glass beads, best possible retroreflectivity and superior nighttime visibility.

Our goal to satisfy our customers' needs for top quality products that optimally conform with the local specifications is of highest priority to the staff of LIMBURGER LACKFABRIK GMBH.

LIMBURGER LACKFABRIK GMBH stands for comprehensive know-how in marking systems and offers individual technical on-site support. As a leading supplier of all conventional machine-applied systems we offer customer-oriented consultancy on applications, independently of individual products.



Our product portfolio includes marking systems for a wide range of applications. Our main products such as one- and two-component high solid paints and dispersions, cold spray plastics and cold plastics are available in any RAL traffic colour. Our portfolio is complemented by thermoplastics and special products, such as thinners, primers, glues for road studs, fluorescent or phosphorescent systems, clear varnishes and sealants, levelling mortar, glass beads, anti-skid aggregates and coloured glass granulate.

MARKING SYSTEMS

Improved traffic safety with marking systems from Germany's market leader

AN EXTRACT FROM OUR COMPREHENSIVE PRODUCT PORTFOLIO

PRODUCT GROUP	LAYER THICKNESS	CHARACTERISTICS	RECOMMENDED APPLICATION
1-C HIGH SOLID PAINT LIMBOROUTE 1-COMP. free from aromatic cpd. LIMBOROUTE HR contains aromatic cpd.	Wet film thickness 0.3 – 0.6 mm	+ cost-efficient marking + HR paint for warm climate zones - low wear resistance	Edgeline markings of roads with lower traffic volumes or roads in poor condition
DISPERSIONS LIMBOROUTE LW, W	Wet film thickness 0.3 – 0.6 mm	+ environmentally friendly + low emission - respect WOT	On roads with little traffic and in sunny climates
2-C HIGH SOLID PAINT LIMBOROUTE 2-COMP.	Wet film thickness 0.3 – 0.6 mm	+ good wear resistance + good adhesion on damp, mineral substrates - longer drying time	Edgelines in forests and on alleys, on damp roads; sufficient application time needed
HOT SPRAY PLASTIC LIMBOSPRAY HSP	Dry film thickness 0.6 – 1.2 mm	+ highly economical - fast wear	Longitudinal markings on roads with low traffic volumes
THERMOPLASTIC LIMBOTHERM HP, PM SWARCOTHERM	Dry film thickness 2.0 – 3.0 mm, 5 mm when inlaid	+ quickly trafficable + highly wear resistant - faster wear if applied with extruder	On roads and city streets with high traffic impact
COLD SPRAY PLASTIC LIMBOPLAST KSP	Dry film thickness 0.2 – 0.6 mm	+ economical marking + good wear resistance + quickly trafficable	Edgelines of roads with high traffic impact
COLDPLASTIC LIMBOPLAST D	Dry film thickness 2.0 – 3.0 mm	+ highly wear-resistant - longer drying time	longitudinal/transverse markings on roads with highest traffic impact



MARKING SYSTEMS TYPE I

The standard on European roads

So-called Type I markings are a widely used and very cost-efficient type of road marking, characterised by good daytime visibility as well as good nighttime visibility in dry conditions. In bad weather (fog, rain) a water film on the glass beads of the marking system reduces its retroreflectivity at night. The road marking does no longer shine and is barely visible.

Type I markings can be applied as smooth striping with any homologated sprayable material as well as with thermo- and coldplastics. Designed for the individual system, glass bead blends with sizes ranging from 100 to 850 microns are used.

MARKING SYSTEMS TYPE II

State-of-the-art road markings for perfect day, night and wet road visibility

So-called Type II markings provide good visibility in wet conditions at night. This results in considerably improved traffic safety, hence these systems increasingly replace type I marking systems. The positive effect of these rain-reflective systems is achieved when a sufficient amount of correctly embedded reflective material (e.g. glass beads) remains above the water film and thus contributes to keeping up retroreflection. This can be achieved with:

- Marking systems with a structured surface (stochastic or regularly distributed agglomerates)
- Profiled marking systems with haptic effect and warning function
- Smooth line systems (thin or thick layer markings) with coarse drop-on materials

SMOOTH LINE SYSTEMS WITH COARSE DROP-ON MATERIALS

THIN LAYER TYPE II

PRODUCT GROUPS

- 1-Comp. High Solid Paint
- 2-Comp. High Solid Paint
- Dispersions
- Hot spray plastic
- Cold spray plastic

MAIN CHARACTERISTICS

- Min. layer thickness 0.6 mm
- Glass beads are directly exposed to traffic impact and wear
- Prone to fast wear under snowplough impact

HOMOLOGATED INNOVATIONS

KSP 130 TopLine and plus9spots constitute a new dimension of retroreflection and improve the traffic-technological features of the marking.

THICK LAYER TYPE II

PRODUCT GROUPS

- Coldplastic lay-on
- Thermoplastic lay-on or inlaid

MAIN CHARACTERISTICS

- Layer thickness 2–3 mm inlaid 5–7 mm
- Glass beads are directly exposed to traffic impact and wear
- Thermoplastic is less resistant to wear than coldplastic
- With ongoing thermoplastic wear, embedded premix beads are exposed and ensure the good longer-term night-time visibility in wet conditions
- Coldplastic can be easily refurbished with a layer of cold spray plastic



STRUCTURED MARKINGS TYPE II

Better visibility and increased safety with agglomerate markings

Agglomerate marking systems, with their open texture and excellent drainage effect in wet conditions, are the most commonly used type II markings in Germany. LIMBURGER LACKFABRIK GMBH realised the potential of these innovative marking systems early on and has focussed its research and development efforts in this direction. Various marketing campaigns have helped to convince road administrations of the cost effectiveness and advantages of agglomerate markings.

Depending on the application technique, we distinguish between **STOCHASTIC STRUCTURE** and **REGULARLY DISTRIBUTED STRUCTURE**.

We will gladly advise you.

AGGLOMERATE MARKINGS

made of reactive materials

LIMBOPLAST: D480 STRUKTUR
AND STRUCTURED PLASTIC

MAIN CHARACTERISTICS

- Low material usage
2.2–2.8 kg/m²
- Highly resistant against wear
and winter services

INNOVATIONS

A combination of two high quality, field-tested and homologated products (D480 Struktur with cold spray plastic or 2-COMP. K809) to form a marking system with SOLIDPLUS glass beads and a high retroreflectivity values of over 500 mcd/m²*lx, for example:

- for temporary markings on new surfaces with 2-COMP. K809 on mineral surfaces with residual moisture
- for refurbishing of worn-out and weathered agglomerate markings by recoating with 2-COMP. K809 or cold spray plastic

made of thermoplastics

AGGLOTHERM TS,
AGGLOTHERM 50,
AGGLOTHERM TOPLINE

MAIN CHARACTERISTICS

- Material usage approx.
3.5–4 kg/m²
- With ongoing thermoplastic wear, embedded premix beads are exposed and ensure good longer-term night-time visibility in wet conditions
- Less wear resistance against winter services, especially with stochastic agglomerates compared to agglomerates made of reactive materials
- Higher application temperature compared to smooth line systems made of thermoplastic materials

INNOVATION

Utilisation of new, high-quality SOLIDPLUS glass beads with a high degree of roundness and a higher refractive index for excellent night-time visibility



We offer the right solution for any special marking application

LIMBURGER LACKFABRIK GMBH offers the full range of marking systems and is your specialist for numerous special applications with innovative and well proven products. Get in contact with us and together we will find the right solution.

BIKE LANE MARKINGS / LARGE SURFACE MARKINGS

Our materials for large surface markings for various traffic volumes were developed with a focus on high elasticity and flexibility in order to level out expansion movements of the substrate caused by temperature variation.

INNOVATION: Cold spray plastics (KSP) with coloured glass granulate for good grip and improved colour intensity of bike lane markings. Coldplastic D485 for large surface markings and anti-skid surfaces with bauxite particles for heavy traffic impact and high skid resistance.

MARKINGS FOR CAR PARKS / INDUSTRIAL HALLS

Our range of high quality thin and thick layer indoor marking products is proven and well established. In combination with tested phosphorescent lines for escape route markings, these systems add a new dimension to indoor safety.

CONSTRUCTION ZONE MARKINGS

Our 1-comp. and 2-comp. high solid paints, cold spray plastics and structured plastics are well suited for temporary yellow markings at road construction zones and constitute a cost-efficient alternative to tapes.

AIRFIELD MARKINGS

Our top quality 1-comp. and 2-comp. high solid paints, dispersions and cold spray plastics have been tested and approved for their resistance against fuel, oil and deicers.

INNOVATION: Airport beads for type I and type II markings with higher refractive indices provide excellent retroreflectivity. Coloured glass granulate increases the skid resistance of coloured markings.

SKID SURFACE COATINGS

Our skid surface plastic H 145 G with smooth surface and optional 2-comp. UV clear coat sealing is well proven as permanent coating for skid surfaces used in driver training centres to simulate aquaplaning and packed snow.

FURTHER PRODUCTS FOR SPECIAL APPLICATIONS:

- LIMBOROUTE CIRCUITLINE WBP
a FIM-homologated dispersion for race tracks
- Fluorescent daylight paint systems
- Sports ground, playground and "design" marking materials
- Tactile systems for the blind made of thick-layer reactive materials
- Repair and levelling mortar, road marker adhesives, clear varnishes, sealants, and primers complement our comprehensive range of special products



LIMBURGER LACKFABRIK GMBH

LIMBURGER LACKFABRIK GMBH has long-standing experience and specialist expertise in the development and production of liquid road marking materials and systems. As market leader in Germany, our primary market, and with one of Europe's most modern paint factories we are a competent partner for road marking contractors and road administrations. We are proud of successful business relationships with partners in over 30 countries. Our quality management is certified according to ISO 9001:2008.

Our accredited apprenticeship programme, awarded by Germany's Federal Employment Agency, has been focusing on the training and development of our junior staff in all corporate areas for years. This is a cornerstone in ensuring the success of our company also in the future.

LIMBURGER LACKFABRIK GMBH is a company of the international SWARCO Group which offers the complete range of products, systems, services and turnkey solutions for road marking, signage, traffic signalling and traffic management. SWARCO is the first choice when it comes to design the growing mobility needs of society in an innovative, environmentally sound and safe manner.

Talk to us first.



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