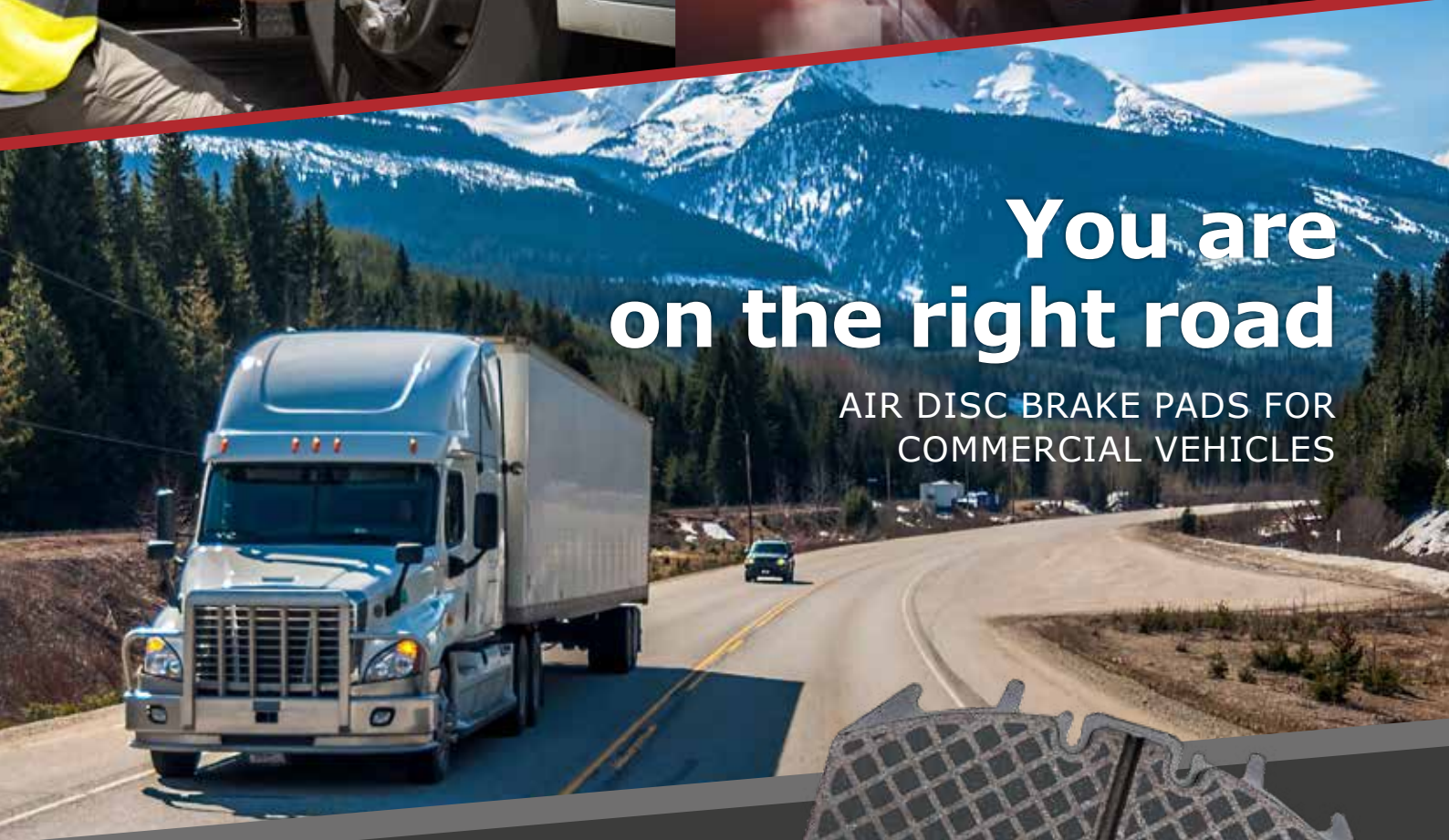




You are on the right road

AIR DISC BRAKE PADS FOR
COMMERCIAL VEHICLES



WHO ARE WE?

LUMAG Sp. z o.o. is a leading manufacturer of friction materials and a strong brand on world markets.

The company was established in Poland in Central-Eastern Europe.



LUMAG REPRESENTS MORE THAN 30 YEARS OF TRADITION!

We wish to thank our customers all over the world for their trust and promise to continue to grow in the friction material market. Bon voyage!

WE RELY ON EXPERIENCE

Thanks to many years of competence in the production of brake linings and an active presence on the market, the company has efficiently implemented new technologies, which it focuses on today: **the production of brake pads for commercial vehicles and passenger cars.**



GLOBAL RANGE OF LUMAG BRAKE PAD AND LINING SALES



LUMAG operates on the basis of formulas prepared by its own research and development department. This allows the company to fully control the production process.

LUMAG & BRECK

The LUMAG company constitutes two separate brands. Pads for trucks are manufactured under the **LUMAG** brand, while pads for passenger cars are **BRECK's** domain. BRECK brake pads are manufactured in amount of 5 million units per year using innovative technologies and the highest quality raw materials.



QUALITY CERTIFICATES

Implemented international operational and production norms and standards secure the highest quality of LUMAG products.

// ISO 9001

// ISO 14001

// IATF 16949

All products are also homologated according to ECE R-90 or R-13 regulations.

WE INVEST IN MODERN TECHNOLOGIES

At LUMAG we place great emphasis on high quality machines. The company is particularly interested in automation of processes, so that our customers receive the best quality and safest products, reliable in all conditions and meeting global standards.

STATE – OF – THE – ART BRAKE FRICTION MATERIAL PLANT IN CENTRAL-EASTERN EUROPE

This is also one of our achievements! The biggest investment in the history of the company is a factory and an office building with an area of nearly 19,000 square meters. It enables us to meet the requirements of OEM automotive industry and satisfy our customers worldwide.



friction materials

R&D CENTER

LUMAG conducts tests of brake linings and pads based in its own research center and laboratory, as well as in cooperation with research entities in Poland and Europe.

Measurements of various product properties are carried out both in the laboratory and on the road. The company obtains the necessary certificates and approvals for its products, using European quality standards and the highest modern production standards.

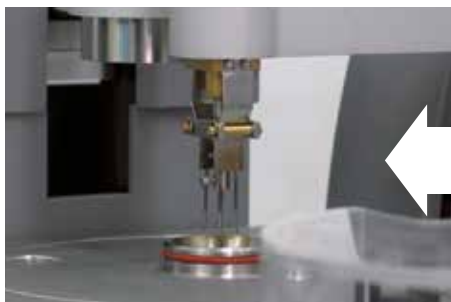


R&D TESTING PHYSICAL -MECHANICAL PROPERTIES

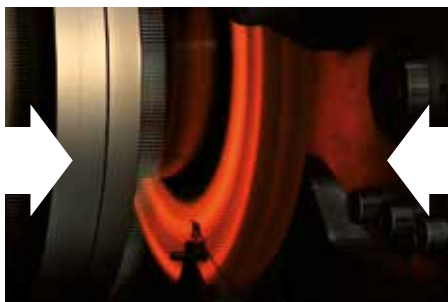
- // compressibility
- // pad swell
- // friction coefficient
- // hardness
- // thermal conductivity
- // density, porosity
- // shear strength

LUMAG conducts a number of tests: on a dynamometer, a braking efficiency test (a so-called performance test), a test simulating mountain driving, as well as physical and mechanical friction material property tests.

ACTIVITY OF THE R&D



Development of friction material formulas and new products



Improvement of our products



Benchmarking research on the products

OUR PRODUCTS



For Air Drum Brakes LUMAG offers 5 different friction materials to provide appropriate products for different applications.



For Air Disc Brakes LUMAG offers 5 different friction materials. This covers most of applications including Transit & Refuse.



Within our range for cars & vans we offer 4 metallic and 5 ceramic friction materials. This secures the best braking efficiency & comfort in daily use.

Type of the vehicle, axles and drive determine what material has been applied.



friction materials

LU 914

technology at the highest level and environmental protection

The 29174 00 914 00 (FMSI 8931 - D1708) air disc brake pads were designed for commercial vehicles such as trucks & coaches where Meritor ELSA 225-3 calipers were installed.

Fine Blanking® technology

The back plate is the main structural component of the brake pad the friction material is attached to. Free movement of the pad in the caliper is ensured, among other factors, by precision machining of blanking edges/surfaces contacting the brake yoke and by the flatness of the whole plate.

The brake pad bracket is a steel component preventing the brake pad with an installed spring from falling out of the caliper. It retains the pads in the caliper.

LUMAG has been the first European friction material supplier to manufacture back plates using the fine blanking technology.

The company has its own blanking and stamping line for back plates and brackets made by the Swiss manufacturer Feintool. This grants us full independence from external suppliers and allows us to expand our offering by expertly made final products.



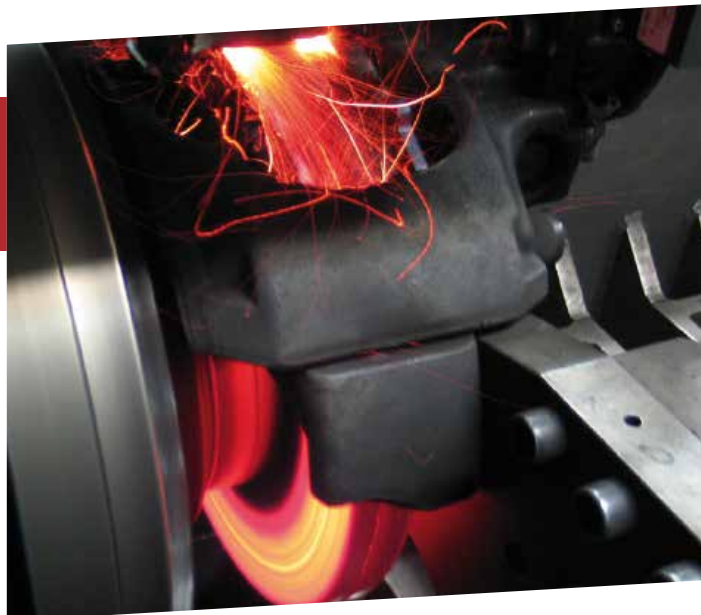
Fine blanking technology

- // EUR 5 Mill. total investments
- // 880t hydraulic press + inline processing
- // 2018 - 5 types of back plates production
- // Total capacity 6 Mill. pcs/year*
- // Fine blanked Edge = max. Guidance
- // Flatness = fewer quality issues
- // 3-D forming = retention system
- // 20 pcs/hr

*Available from May 2020

Friction material mix – the environmentally friendly choice in exceptional conditions


LU 914 low-copper friction material has many advantages. One of them is a guarantee that the product meets the latest requirements for the reduction of harmful substances. Particularly valuable is the manufacturer's warranty, which relates to the reduction of copper and the emission of dust into the atmosphere (Better Brakes regulation). LU 914 is an environmentally friendly product.



**29174 00 914 00 (FMSI 8931-D1708)
brake pads manufactured on the basis
of the LU 914 FMSI material provide:**

- // longer mileage without having to change pads
- // better interaction between the pad and brake disc
- // stable braking performance even at 1652°F
- // high comfort of use due to increased thermal resistance
- // care for the natural environment

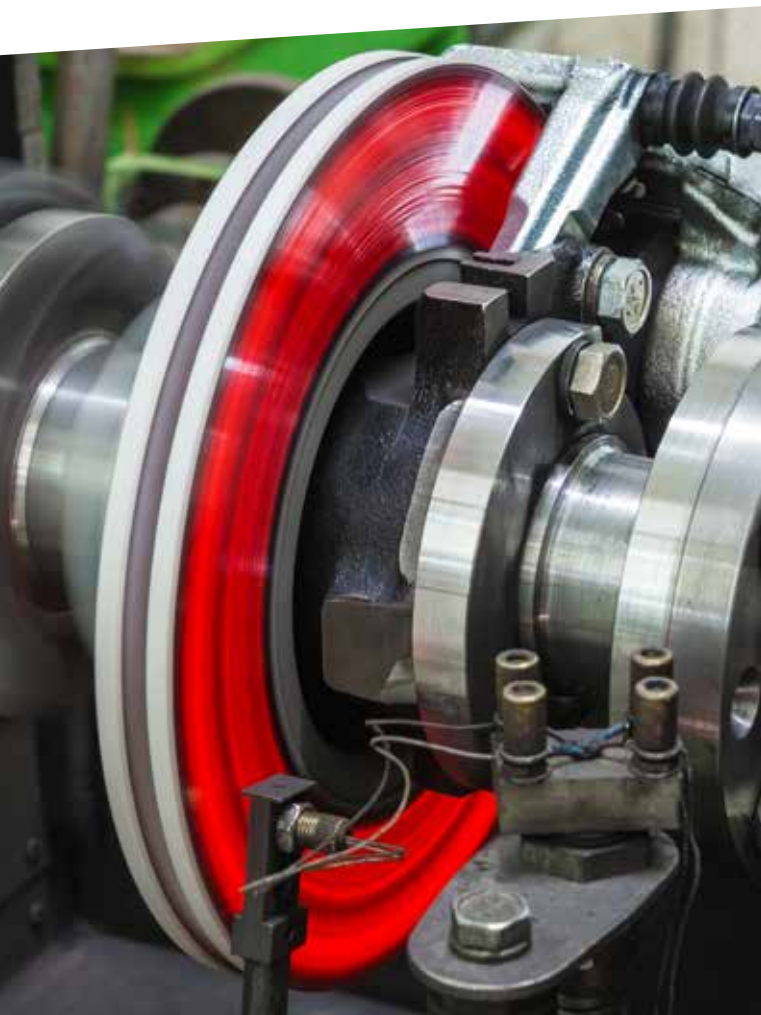
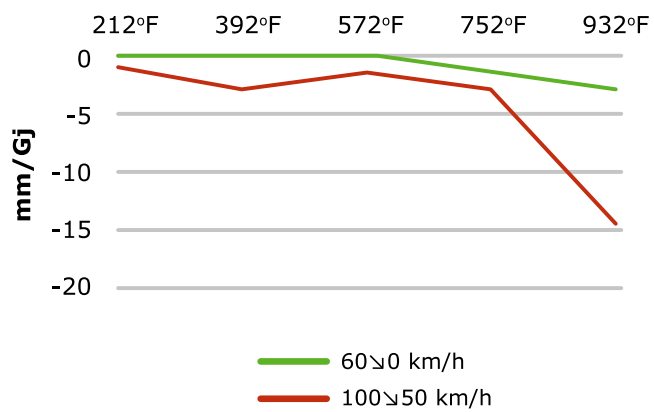
**ENVIRONMENT FRIENDLY
PRODUCTION**

Pb Lead	Cd Cadmium
Cr Chromium	Hg Mercury
Cu <5,0% Copper	
	

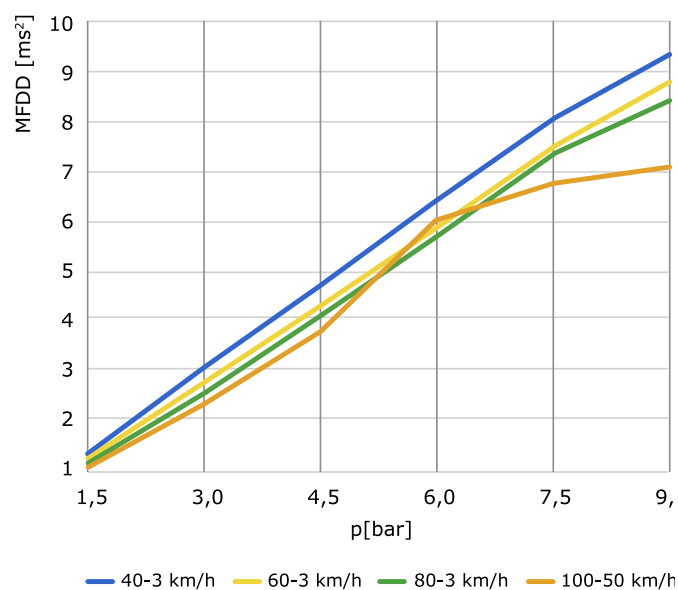
LU 914

Wear according to ISO26866 LU 914

Thanks to the use of innovative substances, we managed to significantly reduce the factor of wear of the 29174 (D1708) pads and the disc.



Performance at 572°F



Technical data for ISO 26866 wear test

caliper	Meritor ELSA 225-3
Brake cylinder	24"
Pad surface in cm ²	173
Axle load [kg]	10000
Dynamic radius re [mm]	527
Friction radius re [mm]	173
Inertia [kg*m ²]	1389



LUMAG CROSS LIST

FMSI No.	Caliper Name OEM	Caliper Type OEM	Lumag No.	Recommended application	
				Refuse & Transit	Long Life Application
8322-D1203	Bendix	SB7/SN7	29108 00 901 10		✓
8322-D1203			29108 00 903 10	✓	
8479-D1369		ADB22X, SK7	29158 00 901 00		✓
8735-D1527	Haldex	MODULX-DB22	29143 00 901 00		✓
8425-D1310	Meritor	Lucas D-Elsa2	29131 00 901 00		✓
8245-D1310			29131 00 903 00	✓	
8427-D1312		D-Lisa	29090 00 901 00		✓
8515-D1407		D-Elsa1	29030 00 901 10		✓
8733-D1525		DX195	29124 00 901 00		✓
8771-D1560		D Duco	29125 00 901 00		✓
8771-D1560			29125 00 903 00	✓	
8931-D1708		Elsa 225-3	29174 00 914 00		✓
8931-D1708			29174 00 903 00	✓	
8556-D1438	Wabco	Pan19	29126 00 901 00		✓
9007-D1777		Pan22	29162 00 901 00		✓
8227-D1518		Pan17	29088 00 902 00		✓
9294-D2061		MAXXUS	29279 00 901 00		✓

All brake pad sets supplied with hardware sets.

THIS IS OUR COMMON INTEREST

LUMAG'S OFFER INCLUDES FRICTION MATERIALS DEDICATED TO:

Tankers



Buses



Garbage
trucks



Semitrailers



HGV's



City
buses



Product catalog



catalog.lumag.pl

There are no compromises in this industry! We create brake pads in such a way as to meet the expectations of our direct customers and those who appear at the next stages of their distribution.



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**European
Funds**
Smart Growth



**Republic
of Poland**



Polska

European Union
European Regional
Development Fund

