



**Our expertise:**

- Complete manufacturing of parts to be coated or technical manufacturing support
- Machining services to prepare the parts for coating
- Coating
- Sealing
- Mechanical finishing of the coating (grinding, finishing, polishing, smoothing, lapping, brushing)
- Short lead times

**LWK plasma ceramic:  
extended service life, enhanced resistance and higher profitability**

For more than 40 years LWK has been developing methods to protect engineering components from wear.

Our high level of expertise, good flexibility, staff qualifications and maximum customer dedication by expedient order handling have made us the partner chosen by numerous companies both in Germany and abroad.

LWK has firmly made its mark in the mechanical engineering industry, industrial furnace construction, the steel, petrochemical and glass industries and many others.

Our excellent reputation is based not only on fast problem solving – even over night – but also on the constant improvement of our processes and their flexible adjustment to suit customer applications.

Our stringent quality management system ensures standardised, repeatable production workflows to give our customers the safety which they can always rely on.



Material	Al <sub>2</sub> O <sub>3</sub> – TiO <sub>2</sub>	Cr <sub>2</sub> O <sub>3</sub>	WC – Co	Cr <sub>3</sub> C <sub>2</sub> – NiCr
Layer thickness [µm]	150 – 500	150 – 250	100 – 250	150 – 250
Hardness [HV0,3]	800 – 1500	1600	1000 – 1200	750 – 850
Roughness Ra [µm]	0,21 – 3,20	0,051 – 3,20	0,11 – 3,20	0,051 – 3,20
Resistance to wear	good to very good	good	very good	good
Resistance to solvents	good	very good	good	very good
Resistance to chemicals	good	very good	good	very good
Corrosion resistance	good	good	good	very good
Electrical conductivity	no	no	yes	yes
Thermal conductivity	very low	very low	high	high
Temperature stability	250 – 600° C	250° C	500° C	950° C
Approval for food industry	yes	yes	—	—

The table shows approximate values for a selection of possible coating materials. Depending on the application, other coating versions are available upon request.

**LWK**

**PlasmaCeramic**

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