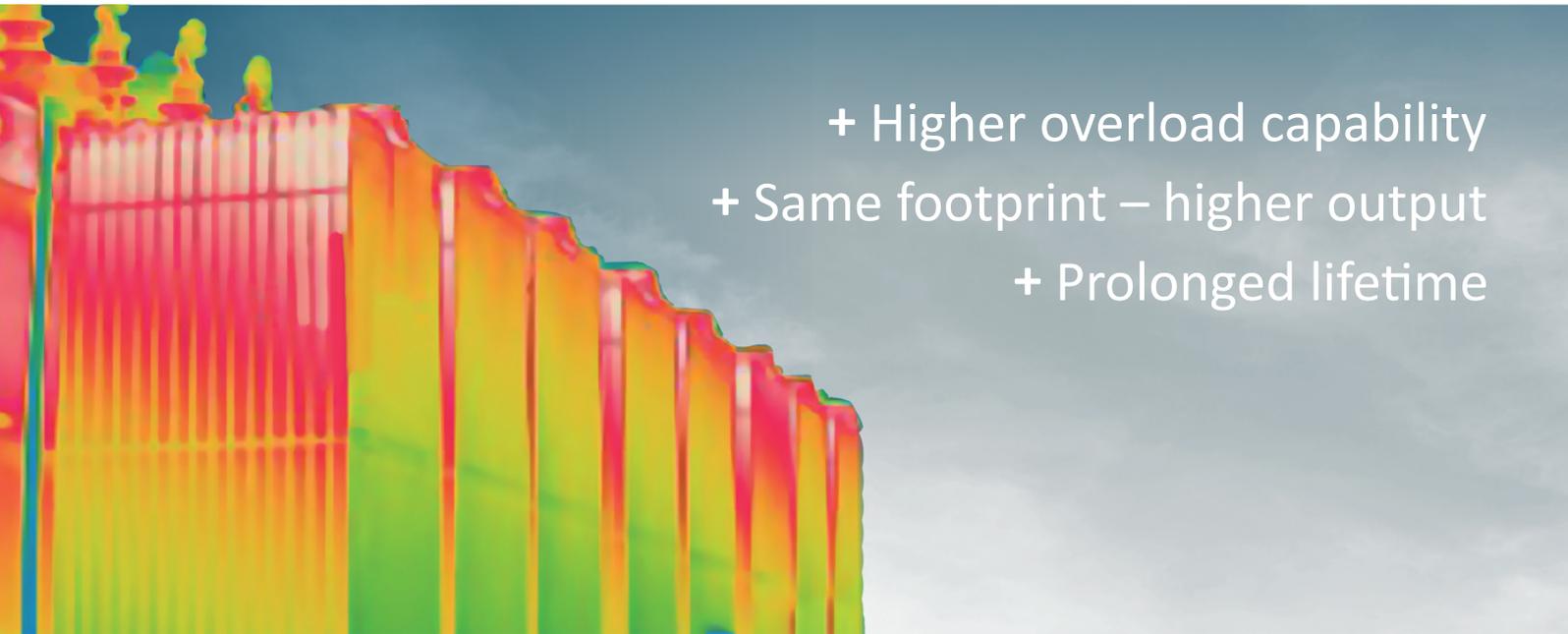


## NEXT LEVEL HIGH TEMPERATURE INSULATION MATERIALS



- + Higher overload capability
- + Same footprint – higher output
- + Prolonged lifetime

### Insulating Materials for all Thermal Classes

Insulation ageing can be hastened by unusually high temperatures that occur inside the transformer winding. This can be the result of long-lasting full-load or short-term overload situations as well as high ambient temperatures, among other factors.

Design solutions that are used for reducing high temperatures, such as enlarging oil channels or the use of active oil cooling, usually result in an oversizing of the transformer and adversely affect the efficiency of the system as a whole.

With its new DPN910 insulating system KREMPEL offers a highly temperature-resistant solution for thermal class 120-140, so closing a gap between pure cellulose papers and pure aramid papers. It overcomes the drawbacks of design approaches to temperature limitation.

When it comes to insulating the layers of liquid-cooled transformers we can offer proven solutions for your individual requirements.

Just talk to us!

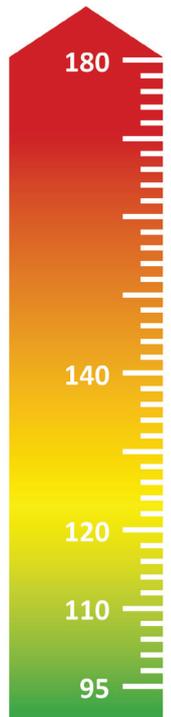
# HIGH TEMPERATURE SOLUTIONS FOR YOUR TRANSFORMER

Distribution transformers are traditionally insulated using special electrical insulation papers and mineral oil. This system provides both electrical insulation and cooling for the transformers. It is one that has proven highly effective over the decades and guarantees great reliability.

At temperatures > 95°C however the paper ages more rapidly, making it prematurely brittle and potentially causing the insulation to fail. Using the innovative KREMPEL DPN910 insulation system will effectively eradicate these drawbacks:

## Insulating Materials for all Thermal Classes

Material Designation	Description	Thermal Index	Thermal Class of Transformer	Thermal Index	Thermal Class of Transformer
		(with Oil)	(with oil)	(with Ester)	(with Ester)
KREMPEL DPN410	KREMPEL DPN410 is a diamond dotted insulating paper made with NOMEX® pure aramid papers. This type is used in applications where high temperatures cannot be avoided or which require maximum reliability.	-	-	180	180
 KREMPEL DPN910	KREMPEL DPN910 is a diamond dotted insulating paper made with NOMEX® 910 which is an aramid enhanced cellulose paper. This type is suitable for medium temperature ranges in applications where a thermally upgraded paper is insufficient but which do not yet require the high thermal class of a pure aramid paper.	120	130	140	140
KREMPEL DPP-TU	KREMPEL DPP-TU is a diamond dotted <b>thermally upgraded presspaper</b> from high quality electrical grade cellulose pulp containing a small amount of nitrogen. This type offers a higher thermal capability than the pure presspaper.	110	120	130	140
KREMPEL DPP	KREMPEL DPP is a diamond dotted presspaper made from high quality electrical grade cellulose pulp. This type can be used for all standard applications.	95	105	110	120



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## KREMPEL-GROUP. At home in the world.

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