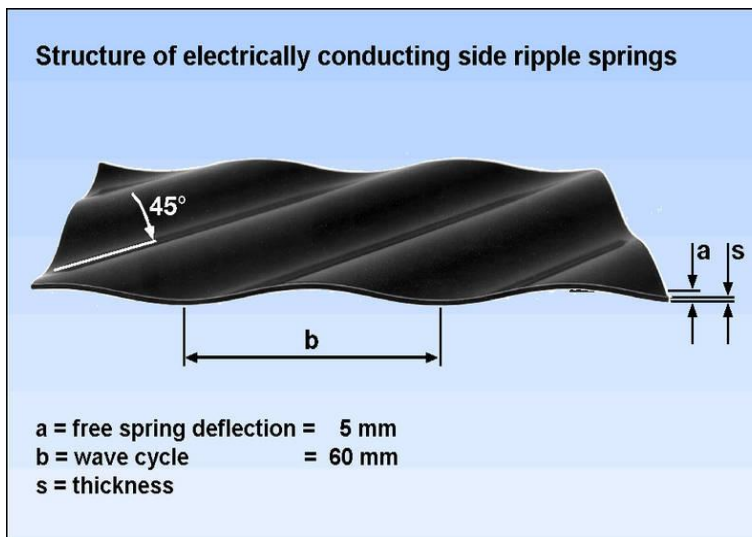




Advantages.

KREMPEL Side Ripple Springs ensure secure contact between the corona shield of the stator winding bars and the core laminations in spite of dimensional changes resulting from temperature variations.

KREMPEL Side Ripple Springs are the electrically and mechanically securing elements in the slot side region, based on the interplay of spring action and electrical conductivity.



Structure, manufacture, and characteristics

Side Ripple Springs from KREMPEL consist of several layers of finely woven glass fabric bonded with a high temperature resistant electrically conducting synthetic resin matrix. The glass content of the laminate is approx. 65%. The proportion of glass fibress is the same in the warp loom and in the weft direction. The resin content is approximately 35%.

Our Side Ripple Springs are pressed to ripple form in heated moulding presses. The ripples run at 45° with respect to the cut edges. The carbon loaded epoxy resin is completely crosslinked after the pressing process. The structure and geometry of the KREMPEL springs are devised in such way that they meet the requirements of high voltage electrical engineering. The spring characteristic is almost linear for up to 50% of the spring deflection, The spring is pressed almost flat when inserted into the slot. The flexural stress arising when pressing the Side Ripple Spring flat is smaller than the flexural strength of the material.

In the standard version of our Side Ripple Springs a polyester non-woven covering layer is pressed onto both sides to reliably prevent possible glass abrasion caused by vibration. Sheets without non-woven covering layer are available too on request.



Data Sheet: SIDE RIPPLE SPRINGS

Side ripple Spring

Dimensions, formats and characteristics values for “electrically conducting side ripple springs”

Type	Nominal thickness mm	Tolerance +/- %	Density approx. g/cm ³	Standard format of master sheets approx mm x mm	For insulation system in class	Surface resistance k/dm ²	Volume resistivity Ω/dm ²	Spring Pressure for Spring height	
								1.5 mm N/mm ²	2.1 mm N/mm ²
Side ripple spring 0.3	0.3	20	1.8	460 x 1030	F	>10	<50	Approx 0.001	Approx 0.001
Side ripple spring 0.5	0.5	20	1.8	460 x 1030	F	>10	<50	0.003-0.010	0.002-0.007
Side ripple spring 0.8	0.8	20	1.8	460 x 1030	F	>10	<50	0.020-0.056	0.013-0.036
Side ripple spring 1.0	1.0	20	1.8	460 x 1030	F	>10	<50	0.060-0.180	0.040-0.110