Claims

1. Electrical contact element (11, 21) for a connector (10, 20), having a metallic base body (111, 211) and a wear layer (113, 213) applied to the base body (111, 211), the wear layer (113, 213) consists of the following alloy elements:

   82 – 91 % by weight nickel
   9 – 18 % by weight phosphorous
   0 – 1 % by weight further alloy elements

   wherein the sum of the alloy elements is 100 % by weight, characterised in that an organic sliding layer (114, 214) is arranged on the wear layer (113, 213), which contains at least one fluoropolymer and/or at least one fatty acid salt.

2. Electrical contact element (11, 21) according to claim 1, characterised in that the wear layer (113, 213) is arranged directly on the base body (111, 211).

3. Electrical contact element (11, 21) according to claim 2, characterised in that the wear layer (113, 213) has a thickness (d_{113}, d_{213}) in the range of from 1.00 µm to 2.50 µm.

4. Electrical contact element (11, 21) according to claim 1, characterised in that a metallic intermediate layer (112, 212) is arranged between the base body (111, 211) and the wear layer (113, 213).

5. Electrical contact element (11, 21) according to claim 4, characterised in that the intermediate layer (112, 212) consists of the following alloy elements:

   99 – 100 % by weight copper or nickel

0 – 1 % by weight further alloy elements

wherein the sum of the alloy elements is 100 % by weight.

6. Electrical contact element (11, 21) according to claim 4 or 5, characterised in that the intermediate layer (112, 212) has a thickness (d_{112}, d_{212}) in the range of from 1.5 µm to 4.0 µm.

7. Electrical contact element (11, 21) according to one of claims 3 to 6, characterised in that the wear layer (113, 213) has a thickness (d_{113}, d_{213}) in the range of from 0.15 µm to 1.50 µm.

8. Electrical contact element (11, 21) according to one of claims 1 to 7, characterised in that the sliding layer (114, 214) has a thickness (d_{114}, d_{214}) in the range of from 0.05 µm to 0.25 µm.

9. Electrical contact element (11, 21) according to one of claims 1 to 8, characterised in that the base body (111, 211) consists of the following alloy elements:
   50 – 100% by weight copper
   0 – 45% by weight zinc
   0 – 5% by weight further alloy elements

   wherein the sum of the alloy elements is 100% by weight.