

## **The wire choice**

The differences between the several materials which are used in the harpsichord making are enormous. So a weak copper string in the bass can have a tensile strength of 500 N/mm<sup>2</sup>, and a thin and long string in the discant can have 2000 N/mm<sup>2</sup>.

### **Which material should I choose for my scaling?**

If the scaling is already given, as it is usually today, you have to carry out a calculation of scaling cogently. So one can say which tension the material has to stand and one can choose a material on which the calculated tension is below the ultimate strength. As help to find a direction one can also use the recommended maximum tension on the test report.

Because of this calculation one can have the certainty that the string does not tear under unfavourable conditions. At the same time one can compare the different materials with each other and get a feeling for typical material typical profiles.

It becomes evident that one can only choose the correct material if there are different materials on your disposal and if one knows their properties really exactly. The reference values given by producers have big tolerances and are of no use for this, as the actual physical wire diametres can deviate extremly from the reference values.