

WP 1819/BS/HAV

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**Ref.:** Material analysis for two lightning conductor tops placed as disposal  
Type "Schirtec-DA" and "Schirtec-A"  
Personnel order by Mr. R. Schirinian  
TÜV-Order.Nr. 2004-WS/PZW-EX-0-000751

## REPORT

About the material analysis executed in the Vienna Test Center of the TUEV  
Austria from August 10<sup>th</sup> until September 30<sup>st</sup> 2004.

### Test subject

Two lightning conductors tops named "Schirtec-DA" und "Schirtec-A". The  
following technical data were given us from the customer:

	"Schirtec-DA"	"Schirtec-A"
Weight:	3,7 kg	2,8 kg
Length:	700 mm	590 mm
Greatest outside diameter-Ø:	120 mm	120 mm

There is no declaration about the used material.

### Purpose of the test

It was to find out by use of spectral analysis which material or material compounds  
have been used for the production of the lightning conductors and whether the  
both mentioned types have been produced out of equal material.

Akkreditiert als:  
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Notified Body 0408

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### Carrying out the test:

The lightning conductors were dismantled into their component parts and in the following for each component part a spectral analysis was done. For the test of the material compound it was used the test device PMI-MASTER PLUS Spark spectrometer, serial Nr. 01DO 109.

### Test result

The following material compounds were realized:

Ferritic chrome alloyed material – component part "lamella (Lamelle)", see enclosure (1 page);

Copper material – component parts "top (Aufsatz)", "can (Dose)", "connecting link (Verbindungsstück)" and "upper part (Oberteil)", see enclosures (4 pages);

Brass material – component part "point (Spitze)", see enclosure (1 page).

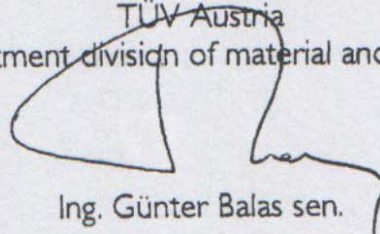
Tests of the component parts type "Schirtec-A" showed equal material in the applied cases.

To sum it up one can say that for the concrete lightning conductor tops of the type "Schirtec-DA" and "Schirtec-A" high quality material has been used. Sustainable environmental influences by use of those materials or their chemical elements when operating with those devices are not known by the undersigned testing body.

Vienna, December 6<sup>th</sup> 2004

TÜV Austria

Head of the department division of material and welding technology



Ing. Günter Balas sen.

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