

## RESEARCH REPORT - LABORATORY

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PROJECT	:	Tread simulation of infill sand samples "30 min 2" and "30 min 3"
RESEARCH PURPOSE	:	Durability assessment after tread simulation (10.000 cycles)
CUSTOMER	:	Sidec NV Contact: Mr. Y. Jonckers
EXECUTION	:	ISA Sport International Project Manager: Ms. N. Siemes <i>me</i>
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### CONCLUSION

From the visual inspection it is concluded that until 10.000 cycles of wear simulation there is no visual change of the sand "30 min 2". There is no visual change of the sand "30 min 3" until 5.200 cycles of wear simulation.

Visually there is no difference noticed between sample "30 min 2" and "30 min 3".

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## DESCRIPTION RESEARCH

Sidec NV asked ISA Sport to do an assessment of the durability of the sand samples "30 min 2" and "30 min 3".

An artificial turf sample for tennis is filled with two types of red infill sand, one sample with sand "30 min 2" and one sample with sand "30 min 3". The filled artificial turf samples are subjected to a tread simulation. The tread simulation is performed according to EN 15306 where the cylinders have a tennis shoe profile. The tread simulation is continued until 10.000 cycles for sand sample "30 min 2" and 5.200 cycles for sand sample "30 min 3". After 1.200, 5.200 and 10.000 cycles the effect of the tread simulation is visualised with photographs. The photographs are magnified 40x by means of a microscope.

The research is performed at a temperature of approximately 23°C and a relative humidity of about 50%.

## RESEARCH RESULTS

### Photographs

The results of the research are given by photographs before and after 1.200, 5.200 and 10.000 cycles. Appendix I shows the photographs of the sand "30 min 2" and "30 min 3" before and after tread simulation.

### Conclusion

From the visual inspection it is concluded that until 10.000 cycles of wear simulation there is no visual change of the sand "30 min 2". There is no visual change of the sand "30 min 3" until 5.200 cycles of wear simulation.

Visually there is no difference noticed between sample "30 min 2" and "30 min 3".



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## APPENDIX PHOTOGRAPHS



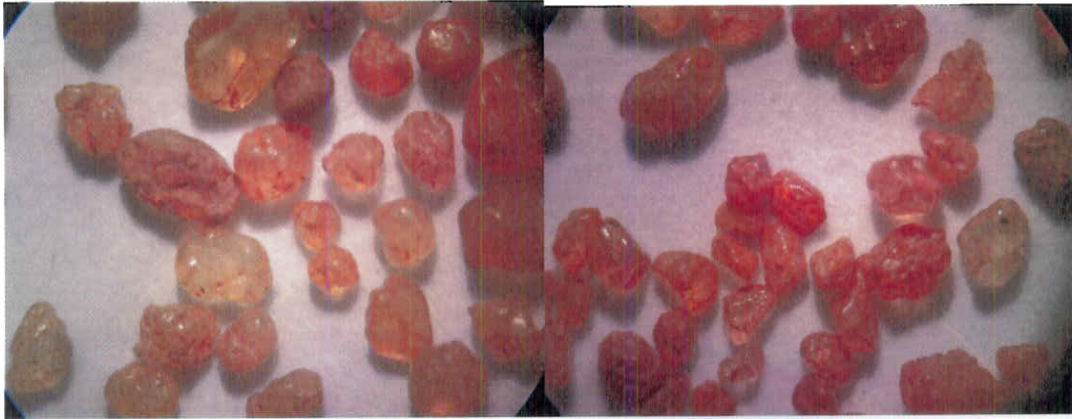


Figure 1: 30 min 2 (left) and 30 min 3 (right) before tread simulation.

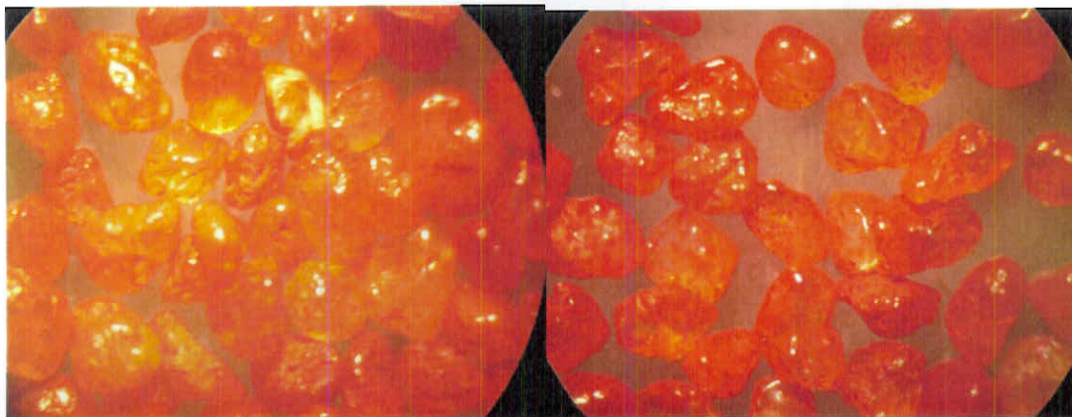


Figure 2: 30 min 2 (left) and 30 min 3 (right) after 1.200 cycles tread simulation.



Figure 3: 30 min 2 (left) and 30 min 3 (right) after 5.200 cycles tread simulation.



Figure 4: 30 min 2 after 10.000 cycles tread simulation.