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Beele Engineering BV
To the attn. of Mr. J.A. Beele
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De Rondom 1
P.O. Box 6235
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Subject
Report Petrol/Diesel tests

Date
December 20, 2007

Our reference
TQS-RAP-07-3192/ggc

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Veluwe and Twente
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Projectnummer
E07.0145

Dear Mr. Beele,

Herewith we sent you a brief report concerning the results of the petrol and diesel resistance of FIWA.

Introduction

Beele Engineering ordered TNO Quality Services BV to control the petrol and diesel resistance of FIWA sealant.

Investigation

To control the petrol (aromatic) and diesel (paraffinic) resistance, the FIWA sealant was cured for three weeks. After that period the FIWA was immersed in the swelling liquid for 30 days. In that period the swelling was measured several times. The results were summarized in the table 1. There were no cracks or surface attacks or softening visible on the swollen samples.

Next to it the samples were dried at room temperature, after four days the samples showed a shrinkage to normal dimensions.

Table 1

	Petrol	Diesel
Time	Swelling (%)	Swelling (%)
1 day	18	5
6 days	51	12
14 days	84	18
30 days	92	27
drying	Drying	Drying
4 days	<5	<15

TQS works according to The Standard Conditions for reaserch instruction given to TNO.
The Standard Conditions will be sent on request.



Conclusion

The swelling test in petrol and diesel with the FIWA sealant showed that after 30 days the surface was not destroyed by the swelling liquids.

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Eindhoven, December 2007

A blue ink signature of B. van Baarle, consisting of stylized, overlapping letters.

B. van Baarle LPRI
Project manager

TNO Quality Services BV

A blue ink signature of J.H. Naus, featuring a large, flowing 'J' and 'N' with a horizontal line extending from the end.

J.H. Naus, M.Sc.
Authorisation