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Test Report No.: **300.128-e** Date: **2003-04-04**

DMTA examination

Client:	Isomax Dekorative Laminate GmbH IZ NÖ Süd A-2355 Wiener Neudorf Austria
Test item:	High-pressure decorative laminate MAX Exterior®
Specification of test:	Examination by DMTA
Order:	by Dr. Peham, in writing, on 2003-03-19
Date of sampling:	- - -
Place of sampling:	- - -
Receipt of samples:	2003-03-21
Ref.:	sey/rai

1 ORDER

ofi was charged by the client to perform the following examination on the sample specified in section 2:

- examination by DMTA (dynamic mechanical thermal analysis) with regard to the behaviour at low temperature

2 SAMPLE

A sample of high-pressure laminate (HPL according to EN 438, sheet dimensions approx. 290 x 190 x 2 mm, colour: white) was submitted by the client. The sample was labelled as:

„MAX Exterior®“

Equivalent high-pressure laminates are also sold under the label:

„MAX Compact®“ and **„MAX Universal®“**

according to the information of the client.

3 TESTING

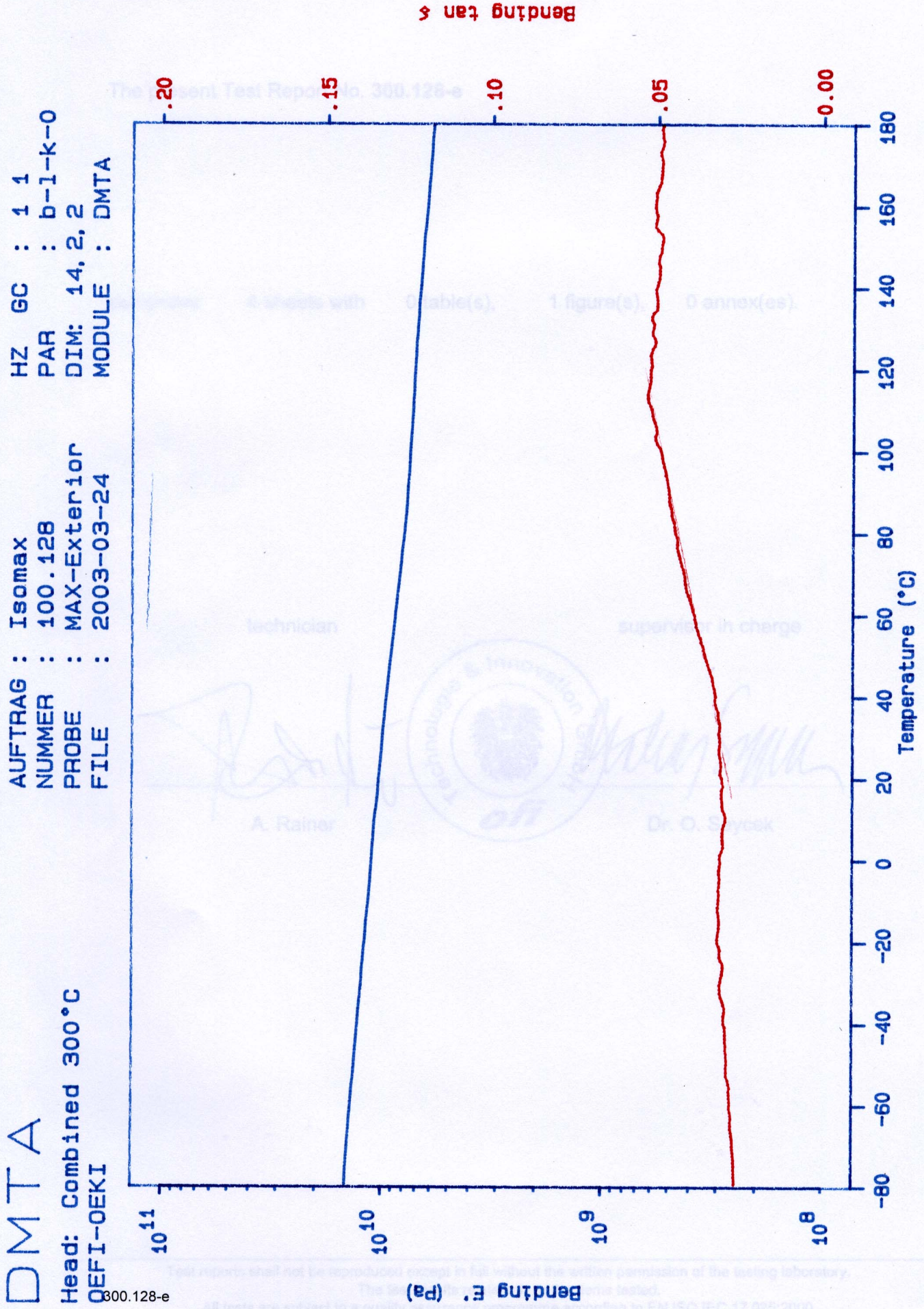
The measurement was performed on the sample in the state as delivered by means of DMTA in the time period of 2003-03-24 to 2003-03-27. An instrument of the type Rheometric PL MK II was used. The test procedure applied comply with requirements set in '***ofi*** Standard Operating Procedure SOP 112.03' which corresponds with EN ISO 6721 (Plastics – Determination of dynamic mechanical properties). Following test conditions were selected:

Dimensions of the test specimen approx. 20 × 2 × 2 mm, test mode: 2-point-bending, temp. interval: -80°C to 180°C, constant rate of increase in temperature: 1 K/min, frequency: 1 Hz, amplitude: 16 µm

4 RESULTS

The obtained curves for temperature-dependent storage modulus ***E'*** and the loss factor ***tan*** δ are shown in the DMTA-plot (Fig. 1). No significant changes of the modulus and loss factor were recognized in the examined temperature interval (a classic example would be e.g. glass transition), which would correspond with possible softening or embrittlement effects in the temperature interval between –80°C and 180°C.

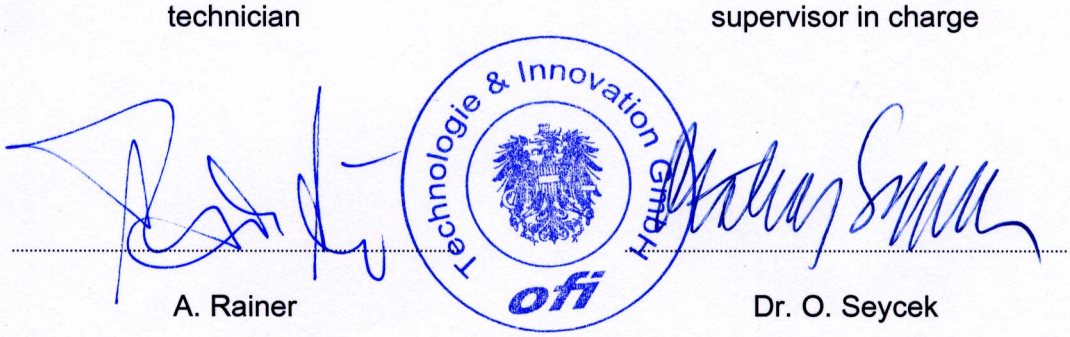
Fig. 1: DMTA-plot



The present Test Report No. **300.128-e**

comprises 4 sheets with 0 table(s), 1 figure(s), 0 annex(es).

technician supervisor in charge



A. Rainer Dr. O. Seycek