



Date of issue: 01 June 2022  
This report enfolds 9 pages.

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# Report

## TGM – VA KU 24649-1

Floating element **JETFLOAT®** made of PE

Compression tests

Commissioned by:	JETFLOAT INTERNATIONAL GMBH
Address:	Oberer Markt 111, 8410 Wildon
Order reached:	2022-05-19
Sign of order:	Herbert Zimmermann
Receiving of test sample(s):	B-4317 (2012-10-11)
Testing period:	--
TGM-number:	190/22

The testing of a floating element made of polyethylene with the designation

## JETFLOAT®

was commissioned with regard to the compression behaviour under the specified conditions.

## Report

### 1. Delivered test material

In accordance with the receipt B-4317 (2012-10-11) of the items, the client submitted four floating elements made of polyethylene PE, natural-coloured, with the nominal dimensions (500x500x400) mm to the Federal Institute of Technology TGM, Plastics Technology and Environmental Engineering. The effective surface (upper side) is structured by a moulded waffle pattern. The floating elements have four staggered loops at the corners, which are provided for connecting the individual elements to form larger units. The floating elements are manufactured by blow moulding and have a closable opening on one side wall with thread R 1 inch.

The marking by mould insert contains the following information:

On the effective surface: JETfloat INTERNATIONAL

On the side walls: JETFLOAT®  
Tel.: +43 6246 – 74294  
Fax: +43 6246 – 742947  
A-5081 ANIF/SALZBURG, AUSTRIA/EUROPE  
BASF Lupolen 5261Z  
Skalierung in cm; MADE IN AUSTRIA



Picture 1: Floating element, overview

## 2. Testing carried out

Unless otherwise stated, the tests were carried out at standard climate 23/50 according to ÖNORM EN ISO 291 (2008 07 01).

### 2.1 Weight determination by weighing

Condition: Weighing of the floating elements as delivered.

Result: A unit weight of 10.82 kg was determined as the mean value.

### 2.2 Compression test

Condition: The load was applied as a compression test in stages, with a load level of 5 kN and a holding time of 1 minute with force stabilisation at each load level. The loading speed from one load level to the next was 50 mm/min. As agreed, the load was applied on the effective side using a round, flat steel punch with a diameter of 220 mm, the area of which corresponded to about 15 % of the area of the effective side. A flat steel plate was used as a bearing surface and the lateral opening was closed by a threaded plug.

The condition of the floating elements at the individual load levels is documented in the following pictures.



Picture 2: Load level 5 kN



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Picture 3: Load level 10 kN



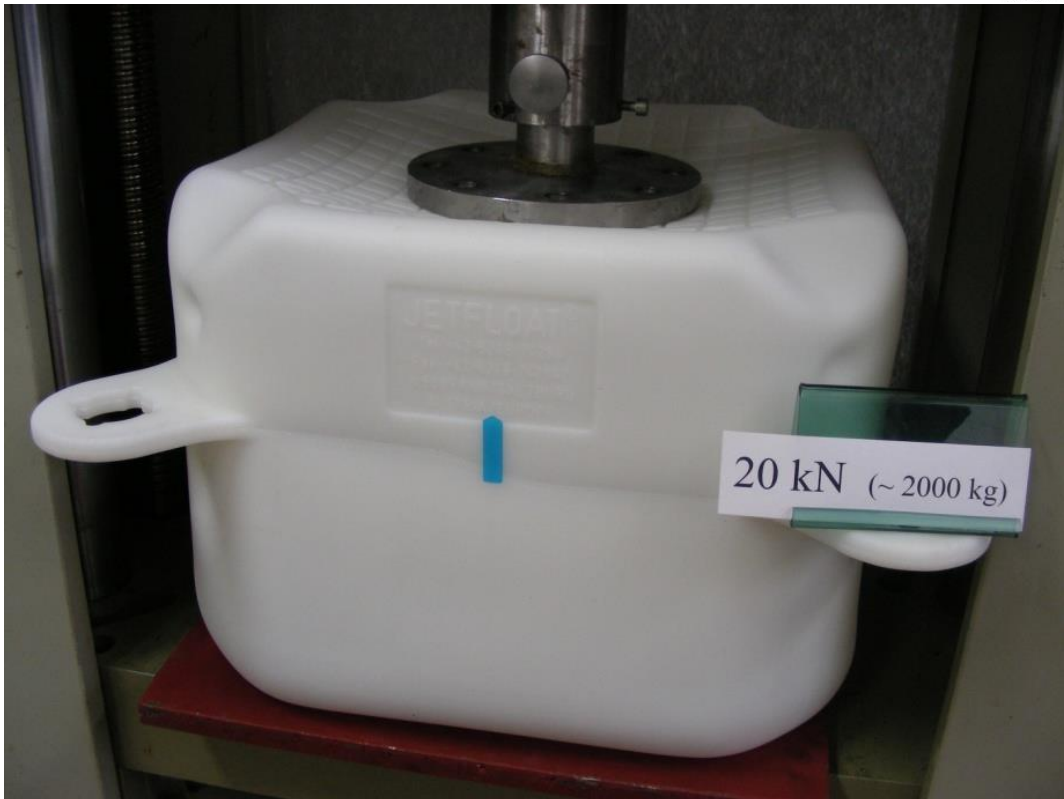
Picture 4: Load level 15 kN



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Picture 5: Load level 20 kN

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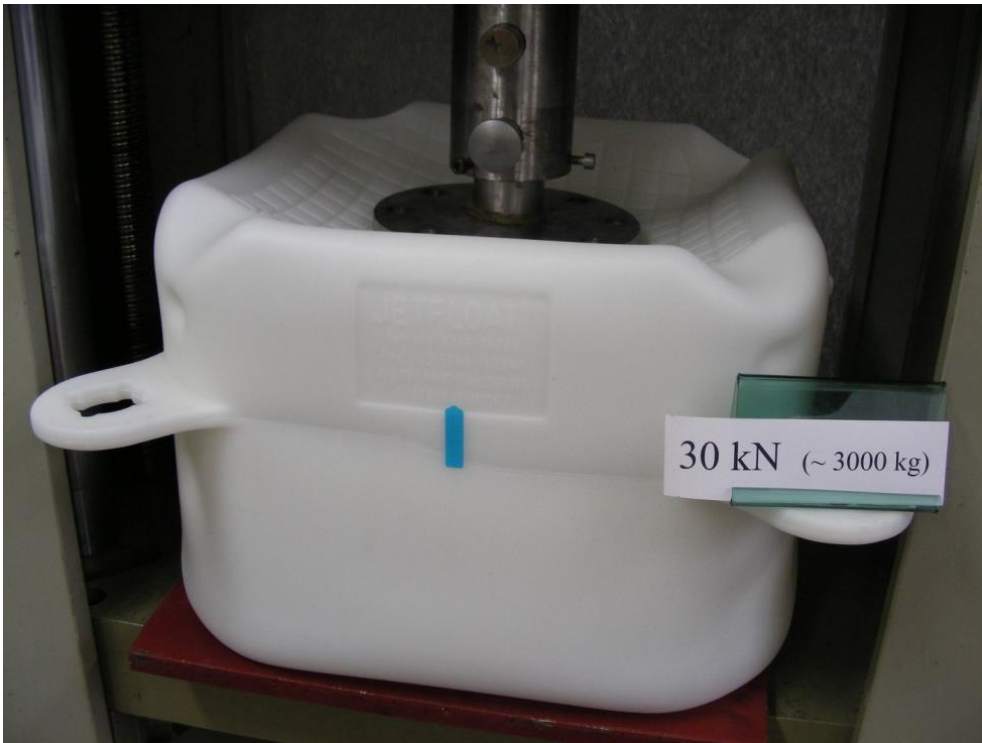
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Picture 6: Load level 25 kN

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Picture 7: Load level 30 kN

The load level 35 kN could not be achieved.



Picture 8: Condition immediately after release



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Picture 9: Condition 1 hour after release

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Picture 10: Condition 24 hours after release

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### 3. Expertise

Based on the compression load tests carried out, it can be assumed that the floating elements made of polyethylene with the designation

**JETFLOAT®**

can withstand a short-term compression load of up to 30 kN under the conditions specified.

The high resilience of the floating elements should be emphasised.

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The present report

is including            9 pages  
                                 0 Appendix(es) (with 0 pages)

Official in charge: Claudia Loder

Vienna, 01 June 2022



DI (FH) Claudia Loder  
Authorized expert

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Head of department

Prof. Ing. Gottfried Stelzl, MSc  
Head of Testing- and Inspection-body

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Staatliche Versuchsanstalt - TGM

Leiter der Prüf- und Inspektionsstelle: Prof. Ing. Gottfried Stelzl, MSc

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Tätigkeitsbereich:

#### Physikalische Technologie:

Untersuchung aller makromolekularen Werkstoffe (Thermoplaste, Elastomere und Duromere) einschließlich ihrer Verarbeitungs- und Anwendungstechnologien. Analyse der Struktur und des mechanischen, thermischen, optischen, chemischen und biologischen Verhaltens. Untersuchung von Aufbereitung, Stabilität, Alterung, Brandverhalten, technologische Eigenschaften und Wiederverarbeitung dieser Werkstoffe.

Untersuchung der Verwendung von Kunststoffen in Technik, Landwirtschaft, Medizin, Verpackung, Gewerbe und Industrie.

#### Chemische Technologie:

Untersuchung von in der Kunststoffverarbeitung und Anwendung verwendeter Rohstoffe sowie der dazu eingesetzten Werk-, Verbund-, Zusatz- und Hilfsstoffe, der Probleme der Korrosion und des Korrosionsschutzes einschließlich der Galvanotechnik, der Lacke und Farben. Untersuchung der makromolekularen Verbindungen in Hinblick auf die Anforderungen der Umwelthygiene und des Umweltschutzes, der Möglichkeiten der Wiedergewinnung (Recycling) sowie die analytische Beurteilung von Abfällen und Rückständen.