10

1

speciic load [N/mm²]

0.1

0.01

0.001

Diepo**last** dyn series

## Working range

**S 75**

**S 150**

**S 350**

**S 750**

**S 1500**

Diepo**last** dyn type

## Recommendations for elastic bearing:

Static load: up to [N/mm²]

**0.075**

Dynamic load: up to [N/mm²]

**0.120**

Load peaks: up to [N/mm²]

**2.0**

Values depending on form factor and apply to form factor q = 3

## Material closed cellular polyether-urethane

Colour yellow

Delivery specifications Thickness: 12.5 mm and 25 mm

Mats: 0.5 m wide, 2.0 m long

Stripes: max. 2.0 m long

Other dimensions on request (also stamping and moulded parts).

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| --- | --- | --- | --- |
| Properties | Value | Test method | Comment |
| Mechanical loss factor (1) | 0.06 | DIN 53513 (2) | guide value |
| Static E-modulus (1) | 0.63 N/mm² | DIN 53513 (2) |  |
| Dynamic E-modulus (1) | 0.92 N/mm² | DIN 53513 (2) |  |
| Static shear modulus (1) | 0.16 N/mm² | DIN 53513 (2) | preload 0.075 N/mm² |
| Dynamic shear modulus (1) | 0.27 N/mm² | DIN 53513 (2) | preload 0.075 N/mm², 10 Hz |
| Resistance to strain | 0.083 N/mm² |  | at 10% deformation |
| Residual compression set | < 5 % | DIN EN ISO 1856 | 50%, 23°C, 70 h, 30 min after unloading |
| Tensile strength | > 1.5 N/mm2 | DIN 53455-6-4 | minimum |
| Elongation at break | > 500 % | DIN 53455-6-4 | minimum |
| Tear resistance | > 1.6 N/mm | DIN ISO 34-1/A |  |
| Rebound elasticity | 70 % | DIN EN ISO 8307 | ± 10% |
| Speciic volume resistance | >1011 Ω·cm | DIN IEC 93 | dry |
| Thermal conductivity | 0.06 W/[m·K] | DIN 52612-1 |  |
| Operating temperature | -30 up to +70 °C |  |  |
| Temperature peak | +120 °C |  |  |
| Inlammability | Class E / EN 13501-1 | EN ISO 11925-1 | normal lammable |
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(1) measured at maximum limit of static application range

(2) test according to DIN 53513

All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed. We reserve the right to amend the data.

## Load deflection curve

0.15

0.10

Specific load [N/mm²]

0.05

0.00

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0 2 4 6 8 10 12

### Recording of the 3rd loading; testing between steel plates at room temperature measured with a delection rate of 1% of the thickness per second

Form factor q = 3

Deflection [mm]

## Modulus of elasticity

1.4

1.2

1.0

Mo d u l u s of elasticity [N/mm²]

0.8

0.6

0.4

0.2

0.0

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0.00 0.05 0.10 0.15

### Dynamic test: sinusoidal excitation with an oscilla- ting range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz

Quasistatic modulus of elasticity:

tangent modulus taken from the load delection curve

Test according to DIN 53513 Form factor q = 3

Specific load [N/mm²]

## Natural frequency

0.15

0.10

Specific load [N/mm²]

0.05

0.00

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0 5 10 15 20 25

### Natural frequency of a single-degree-of-freedom system consisting of a ixed mass and an elastic bearing consisting of **Diepo**last dyn S 75 on

a stiff subgrade. Form factor q = 3

Natural frequency [Hz]

## Correction values varying form factors

### s p eciic load 0.075 N/mm², form factor q = 3

Static load range Deflection

0.080

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0.075

Specific load [N/mm²]

0.070

0.065

0.060

0.3 1 **3** 10

F orm factor

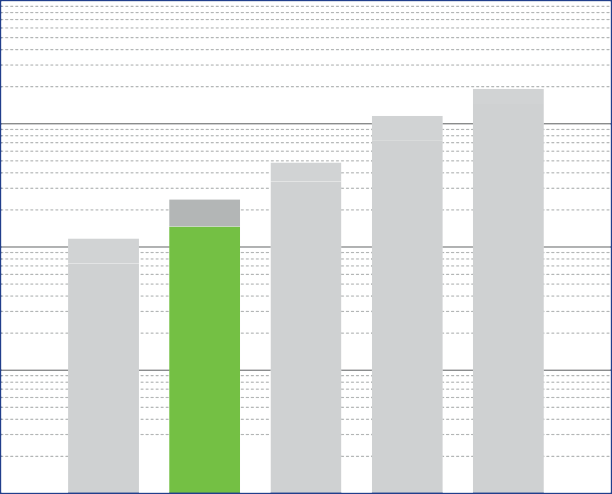
### Dynamic modulus of elasticity at 10 Hz Natural frequency

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The data sheet is not subject to any change service! All information is without guarantee. Latest version of this document available on [www.pus-polyurethan.de](http://www.pus-polyurethan.de/)

10

1

speciic load [N/mm²]

0.1

0.01

0.001

Diepo**last** dyn series

## Working range

**S 75**

**S 150**

**S 350**

**S 750**

**S 1500**

Diepo**last** dyn type

## Recommendations for elastic bearing:

Static load: up to [N/mm²]

**0.150**

Dynamic load: up to [N/mm²]

**0.250**

Load peaks: up to [N/mm²]

**3.0**

Values depending on form factor and apply to form factor q = 3

## Material closed cellular polyether-urethane

Colour green

Delivery specifications Thickness: 12.5 mm and 25 mm

Mats: 0.5 m wide, 2.0 m long

Stripes: max. 2.0 m long

Other dimensions on request (also stamping and moulded parts).

|  |  |  |  |
| --- | --- | --- | --- |
| Properties | Value | Test method | Comment |
| Mechanical loss factor (1) | 0.03 | DIN 53513 (2) | guide value |
| Static E-modulus (1) | 1.25 N/mm² | DIN 53513 (2) |  |
| Dynamic E-modulus (1) | 1.65 N/mm² | DIN 53513 (2) |  |
| Static shear modulus (1) | 0.22 N/mm² | DIN 53513 (2) | preload 0.15 N/mm² |
| Dynamic shear modulus (1) | 0.35 N/mm² | DIN 53513 (2) | preload 0.15 N/mm², 10 Hz |
| Resistance to strain | 0.16 N/mm² |  | at 10% deformation |
| Residual compression set | < 5 % | DIN EN ISO 1856 | 50%, 23°C, 70 h, 30 min after unloading |
| Tensile strength | > 2.0 N/mm2 | DIN 53455-6-4 | minimum |
| Elongation at break | > 500 % | DIN 53455-6-4 | minimum |
| Tear resistance | > 2.1 N/mm | DIN ISO 34-1/A |  |
| Rebound elasticity | 70 % | DIN EN ISO 8307 | ± 10% |
| Speciic volume resistance | >1011 Ω·cm | DIN IEC 93 | dry |
| Thermal conductivity | 0.075 W/[m·K] | DIN 52612-1 |  |
| Operating temperature | -30 up to +70 °C |  |  |
| Temperature peak | +120 °C |  |  |
| Inlammability | Class E / EN 13501-1 | EN ISO 11925-1 | normal lammable |
|  |  |  |  |

(1) measured at maximum limit of static application range

(2) test according to DIN 53513

All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed. We reserve the right to amend the data.

## Load deflection curve

0.30

0.25

0.20

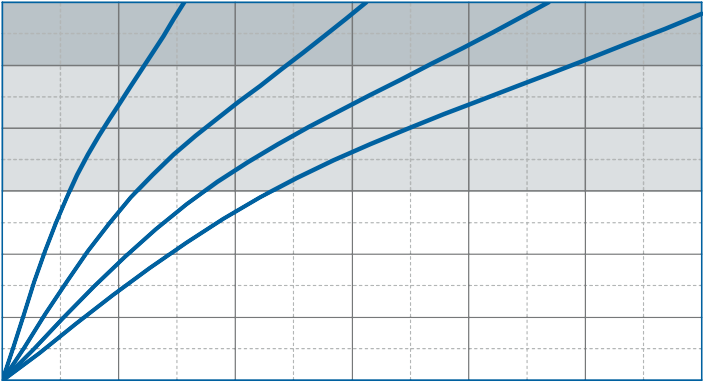
Specific load [N/mm²]

0.15

0.10

0.05

0.00

0 2 4 6 8 10 12

### Recording of the 3rd loading; testing between steel plates at room temperature measured with a delection rate of 1% of the thickness per second

Form factor q = 3

Deflection [mm]

## Modulus of elasticity

3.0

2.5

M o d u l u s of elasticity [N/mm²]

2.0

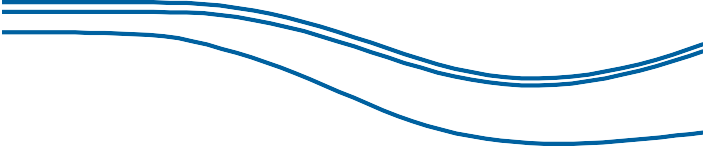
1.5

1.0

0.5

0.0

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0.00 0.05 0.10 0.15 0.20 0.25 0.30

### Dynamic test: sinusoidal excitation with an oscilla- ting range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz

Quasistatic modulus of elasticity:

tangent modulus taken from the load delection curve

Test according to DIN 53513 Form factor q = 3

Specific load [N/mm²]

## Natural frequency

0.30

0.25

0.20

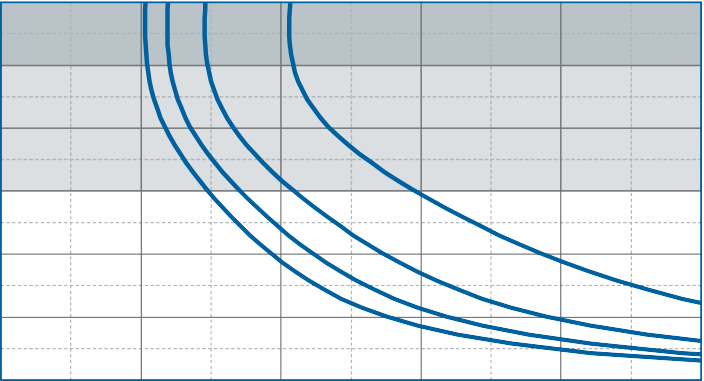
S p e c ific load [N/mm²]

0.15

0.10

0.05

0.00

0 5 10 15 20 25

50 mm

37.5 mm

25 mm

12.5 mm

### Natural frequency of a single-degree-of-freedom system consisting of a ixed mass and an elastic bearing consisting of **Diepo**last dyn S 150 on

a stiff subgrade. Form factor q = 3

Natural frequency [Hz]

## Correction values varying form factors

### speciic load 0.15 N/mm², form factor q = 3

Static load range Deflection

0.17

0.16

0.15

Specific load [N/mm²]

0.14

0.13

0.12

50

40

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30

V ariation of deflection [ %

20

10

0

- 10

0.11

0.3 1 **3**

- 20

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0. 3 1 **3** 10

For m f actor F orm factor

### Dynamic modulus of elasticity at 10 Hz Natural frequency

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n of the dynamic modulus of elasticity [%]

5

0

- 5

- 10

- 15

- 20

- 25

V ariatio

5

0

Variation of th e natural frequency [%]

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- 5

- 10

- 30

0.3 1 **3**

- 15

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0.3 1 **3** 10

F or m factor F orm factor

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10

1

speciic load [N/mm²]

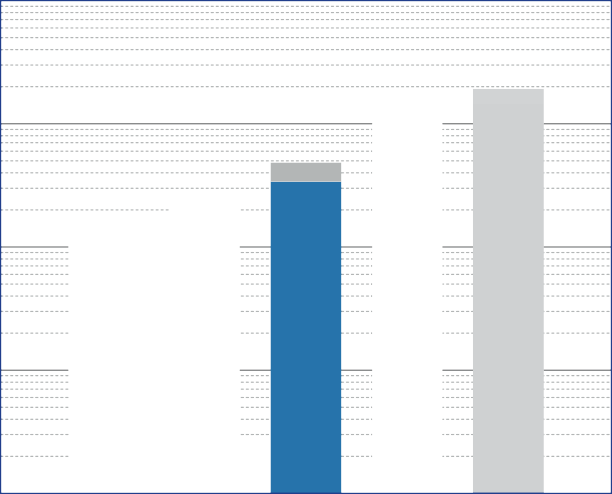
0.1

0.01

0.001

Diepo**last** dyn series

## Working range



**S 150**

**S 750**

**S**

**350**

**S 75**

Diepo**last** dyn type

## Recommendations for elastic bearing:

Static load: up to [N/mm²]

**0.350**

Dynamic load: up to [N/mm²]

**0.500**

Load peaks: up to [N/mm²]

**4.0**

Values depending on form factor and apply to form factor q = 3

## Material closed cellular polyether-urethane

Colour blue

**S**

**1500**

Delivery specifications Thickness: 12.5 mm and 25 mm

Mats: 0.5 m wide, 2.0 m long

Stripes: max. 2.0 m long

Other dimensions on request (also stamping and moulded parts).

|  |  |  |  |
| --- | --- | --- | --- |
| Properties | Value | Test method | Comment |
| Mechanical loss factor (1) | 0.03 | DIN 53513 (2) | guide value |
| Static E-modulus (1) | 2.53 N/mm² | DIN 53513 (2) |  |
| Dynamic E-modulus (1) | 3.25 N/mm² | DIN 53513 (2) |  |
| Static shear modulus (1) | 0,35 N/mm² | DIN 53513 (2) | preload 0.35 N/mm² |
| Dynamic shear modulus (1) | 0,52 N/mm² | DIN 53513 (2) | preload 0.35 N/mm², 10 Hz |
| Resistance to strain | 0.32 N/mm² |  | at 10% deformation |
| Residual compression set | < 5 % | DIN EN ISO 1856 | 50%, 23°C, 70 h, 30 min after unloading |
| Tensile strength | > 3.5 N/mm2 | DIN 53455-6-4 | minimum |
| Elongation at break | > 500 % | DIN 53455-6-4 | minimum |
| Tear resistance | > 2.5 N/mm | DIN ISO 34-1/A |  |
| Rebound elasticity | 70 % | DIN EN ISO 8307 | ± 10% |
| Speciic volume resistance | >1011 Ω·cm | DIN IEC 93 | dry |
| Thermal conductivity | 0.09 W/[m·K] | DIN 52612-1 |  |
| Operating temperature | -30 up to +70 °C |  |  |
| Temperature peak | +120 °C |  |  |
| Inlammability | Class E / EN 13501-1 | EN ISO 11925-1 | normal lammable |
|  |  |  |  |

(1) measured at maximum limit of static application range

(2) test according to DIN 53513

All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed. We reserve the right to amend the data.

## Load deflection curve

0.8

0.6

Specific load [N/mm²]

0.4

0.2

0.0

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0 2 4 6 8 10 12

### Recording of the 3rd loading; testing between steel plates at room temperature measured with a delection rate of 1% of the thickness per second

Form factor q = 3

Deflection [mm]

## Modulus of elasticity

6

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4

Mo d u l u s of elasticity [N/mm²]

2

0

0. 0 0.2 0.4 0.6 0.8

### Dynamic test: sinusoidal excitation with an oscilla- ting range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz

Quasistatic modulus of elasticity:

tangent modulus taken from the load delection curve

Test according to DIN 53513 Form factor q = 3

Spe c i f i c load [N/mm²]

## Natural frequency

0.8

0.6

Specific load [N/mm²]

0.4

0.2

0.0

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0 5 10 15 20 25

### Natural frequency of a single-degree-of-freedom system consisting of a ixed mass and an elastic bearing consisting of **Diepo**last dyn S 350 on

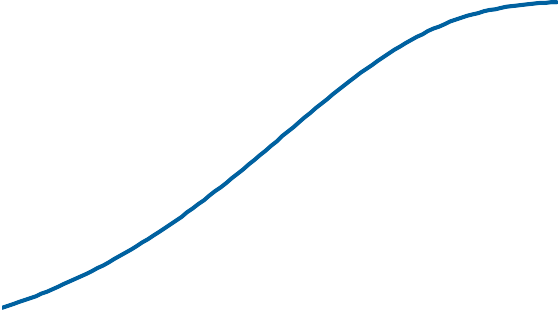
a stiff subgrade. Form factor q = 3

Natural frequency [Hz]

## Correction values varying form factors

### speciic load 0.35 N/mm², form factor q = 3

Static load range Deflection

0.38

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0.36

0.34

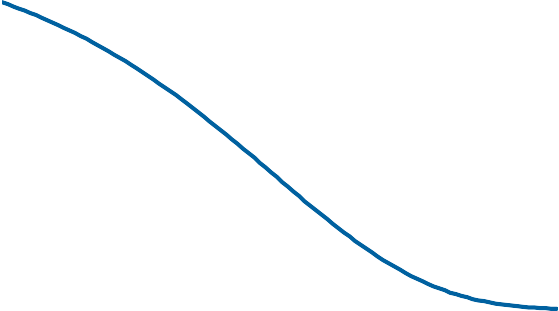
Specific load [N/mm²]

0.32

0.30

0.28

50

40

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30

Variation of deflection [ %

20

10

0

-10

0.26

0.3

1 **3**

For m facto

-20

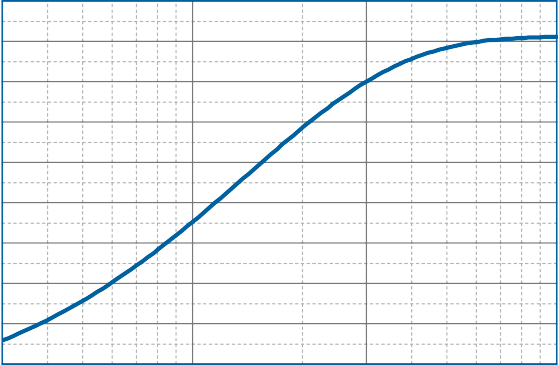
10

0.3

1 **3** 10

Form factor

### Dynamic modulus of elasticity at 10 Hz Natural frequency

10

Variation of the dynamic modulus of elasticity [%]

5

0

-5

-10

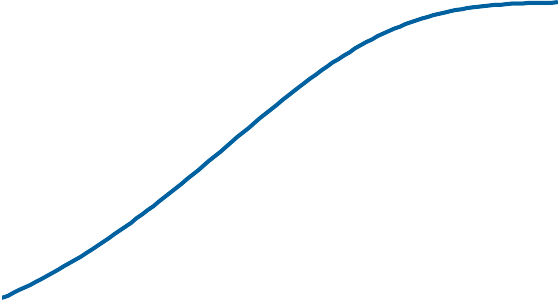
- 15

- 20

- 25

- 3 0

5

0

Variation of the n a t ural frequency [%]

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-15

- 35

0.3 1 **3**

-20

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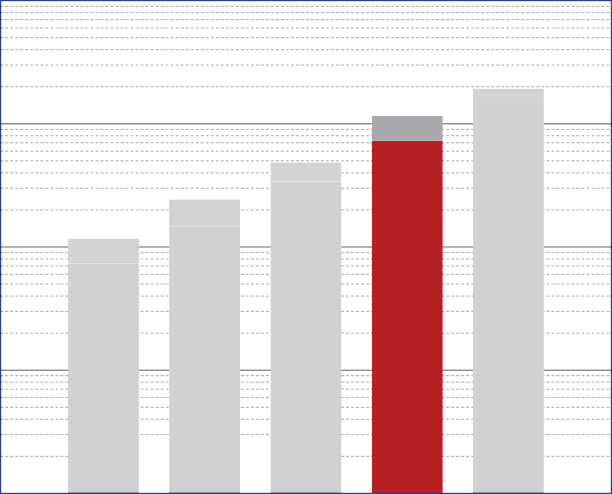
0.3 1 **3** 10

Form factor Fo r m factor

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10

1

speciic load [N/mm²]

0.1

0.01

0.001

Diepo**last** dyn series

## Working range

**S**

**75**

**S**

**150**

**S**

**350**

**S**

**750**

**S**

**1500**

Diepo**last** dyn type

## Recommendations for elastic bearing:

Static load: up to [N/mm²]

**0.750**

Dynamic load: up to [N/mm²]

**1.200**

Load peaks: up to [N/mm²]

**6.0**

Values depending on form factor and apply to form factor q = 3

## Material closed cellular polyether-urethane

Colour red

Delivery specifications Thickness: 12.5 mm and 25 mm

Mats: 0.5 m wide, 2.0 m long

Stripes: max. 2.0 m long

Other dimensions on request (also stamping and moulded parts).

|  |  |  |  |
| --- | --- | --- | --- |
| Properties | Value | Test method | Comment |
| Mechanical loss factor (1) | 0.04 | DIN 53513 (2) | guide value |
| Static E-modulus (1) | 5.21 N/mm² | DIN 53513 (2) |  |
| Dynamic E-modulus (1) | 8.88 N/mm² | DIN 53513 (2) |  |
| Static shear modulus (1) | 0.80 N/mm² | DIN 53513 (2) | preload 0.75 N/mm² |
| Dynamic shear modulus (1) | 1.22 N/mm² | DIN 53513 (2) | preload 0.75 N/mm², 10 Hz |
| Resistance to strain | 0.59 N/mm² |  | at 10% deformation |
| Residual compression set | < 6 % | DIN EN ISO 1856 | 50%, 23°C, 70 h, 30 min after unloading |
| Tensile strength | > 5.0 N/mm2 | DIN 53455-6-4 | minimum |
| Elongation at break | > 500 % | DIN 53455-6-4 | minimum |
| Tear resistance | > 4.3 N/mm | DIN ISO 34-1/A |  |
| Rebound elasticity | 70 % | DIN EN ISO 8307 | ± 10% |
| Speciic volume resistance | >1011 Ω·cm | DIN IEC 93 | dry |
| Thermal conductivity | 0.10 W/[m·K] | DIN 52612-1 |  |
| Operating temperature | -30 up to +70 °C |  |  |
| Temperature peak | +120 °C |  |  |
| Inlammability | Class E / EN 13501-1 | EN ISO 11925-1 | normal lammable |
|  |  |  |  |

(1) measured at maximum limit of static application range

(2) test according to DIN 53513

All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed. We reserve the right to amend the data.

## Load deflection curve

1.6

1.2

Speciic load [N/mm2]

0.8

0.4

0.0

### Recording of the 3rd loading; testing between steel plates at room temperature measured with a delection rate of 1% of the thickness per second

Form factor q = 3

0 2 4 6 8 10 12

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Delection [mm]

## Modulus of elasticity

15

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Modulus of elasticity [N/mm2]

5

0

0.0 0.4 0.8 1.2 1.6

### Dynamic test: sinusoidal excitation with an oscilla- ting range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz

Quasistatic modulus of elasticity:

tangent modulus taken from the load delection curve

Test according to DIN 53513 Form factor q = 3

Speciic load [N/mm²]

## Natural frequency

1.6

1.2

Speciic load [N/mm2]

0.8

0.4

0.0

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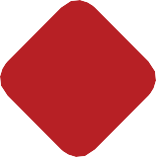
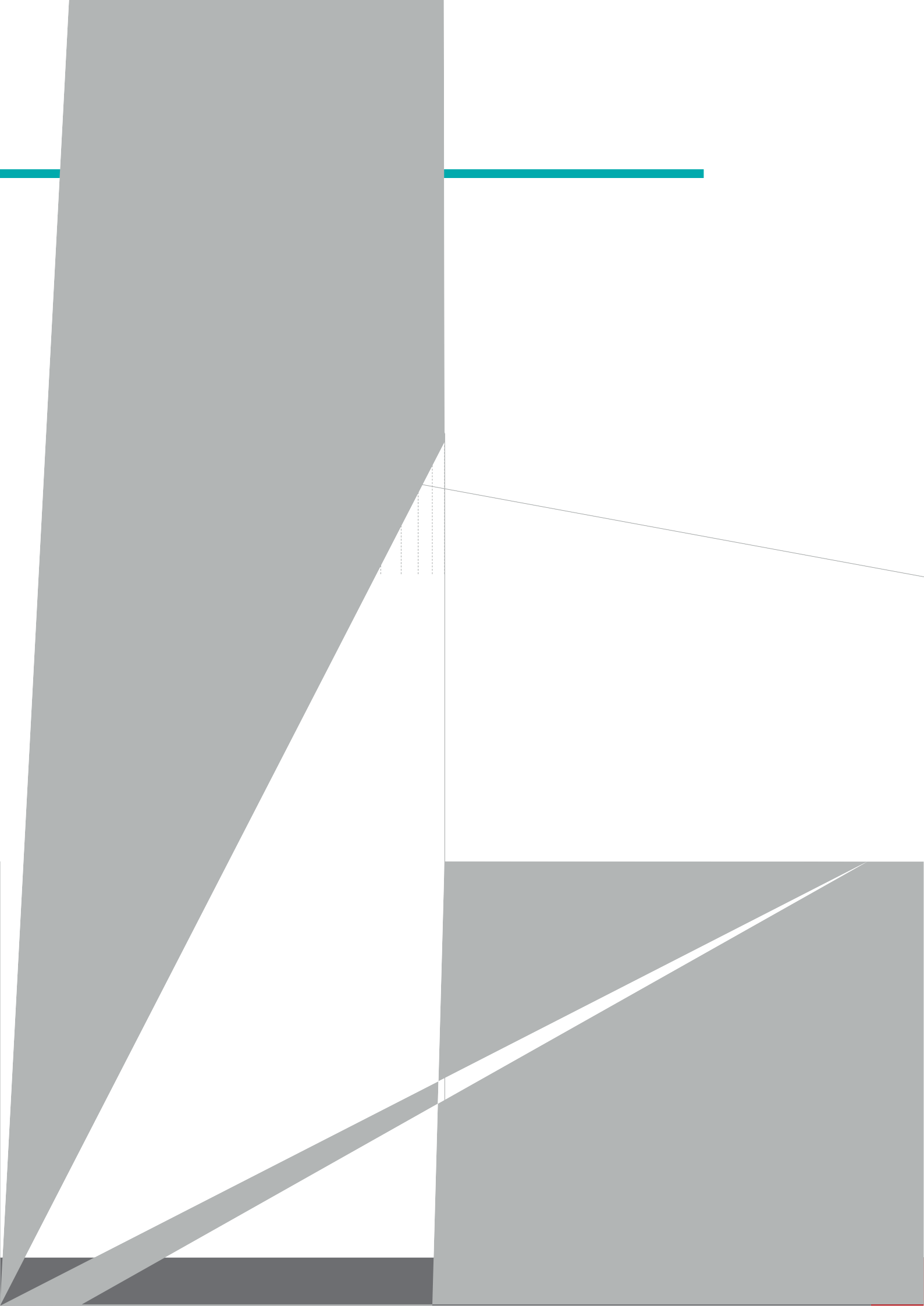
0 5 10 15 20 25

### Natural frequency of a single-degree-of-freedom system consisting of a ixed mass and an elastic bearing consisting of **Diepo**last dyn S 750 on

a stiff subgrade. Form factor q = 3

Natural frequency [Hz]

Diepo**last** dyn **S**



**750**

# Prod t ata eet

## Correction values varying form factors

### peciic load 0.75 N/mm², form factor q = 3

Static load range Deflection

Dynamic modulus of elasticity at 10 Hz Natural frequency

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Telefo 4 0 44 980-0 E-Mail: nfo@p -poly rethan de

Telefa 4 0 44 980-80 Internet: w w p -poly ethan de

10

1

speciic load [N/mm²]

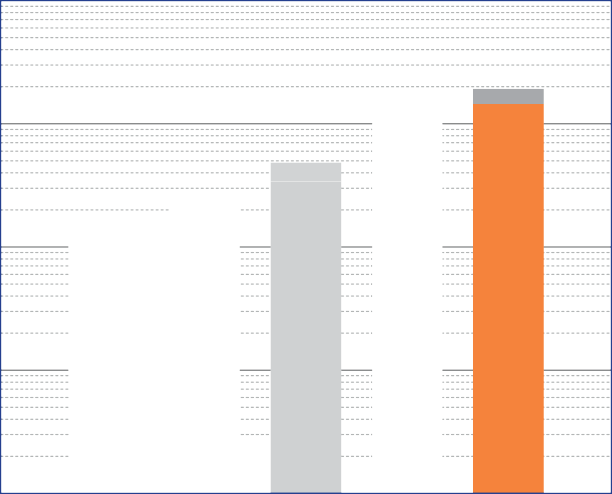
0.1

0.01

0.001

Diepo**last** dyn series

## Working range



**S 150**

**S 750**

**S**

**350**

**S 75**

Diepo**last** dyn type

## Recommendations for elastic bearing:

Static load: up to [N/mm²]

**1.500**

Dynamic load: up to [N/mm²]

**2.000**

Load peaks: up to [N/mm²]

**8.0**

Values depending on form factor and apply to form factor q = 3

## Material closed cellular polyether-urethane

Colour orange

**S**

**1500**

Delivery specifications Thickness: 12.5 mm and 25 mm

Mats: 0.5 m wide, 2.0 m long

Stripes: max. 2.0 m long

Other dimensions on request (also stamping and moulded parts).

|  |  |  |  |
| --- | --- | --- | --- |
| Properties | Value | Test method | Comment |
| Mechanical loss factor (1) | 0.05 | DIN 53513 (2) | guide value |
| Static E-modulus (1) | 9.21 N/mm² | DIN 53513 (2) |  |
| Dynamic E-modulus (1) | 16.66 N/mm² | DIN 53513 (2) |  |
| Static shear modulus (1) | 1.15 N/mm² | DIN 53513 (2) | preload 1.5 N/mm² |
| Dynamic shear modulus (1) | 1.69 N/mm² | DIN 53513 (2) | preload 1.5 N/mm², 10 Hz |
| Resistance to strain | 0.94 N/mm² |  | at 10% deformation |
| Residual compression set | < 8 % | DIN EN ISO 1856 | 50%, 23°C, 70 h, 30 min after unloading |
| Tensile strength | > 7.0 N/mm2 | DIN 53455-6-4 | minimum |
| Elongation at break | > 500 % | DIN 53455-6-4 | minimum |
| Tear resistance | > 5.6 N/mm | DIN ISO 34-1/A |  |
| Rebound elasticity | 70 % | DIN EN ISO 8307 | ± 10% |
| Speciic volume resistance | >1011 Ω·cm | DIN IEC 93 | dry |
| Thermal conductivity | 0.11 W/[m·K] | DIN 52612-1 |  |
| Operating temperature | -30 up to +70 °C |  |  |
| Temperature peak | +120 °C |  |  |
| Inlammability | Class E / EN 13501-1 | EN ISO 11925-1 | normal lammable |
|  |  |  |  |

(1) measured at maximum limit of static application range

(2) test according to DIN 53513

All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed. We reserve the right to amend the data.

## Load deflection curve

2.5

2.0

Speciic load [N/mm2]

1.5

1.0

0.5

0.0

0 2 4 6 8 10 12

### Recording of the 3rd loading; testing between steel plates at room temperature measured with a delection rate of 1% of the thickness per second

Form factor q = 3

Delection [mm]

## Modulus of elasticity

30

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Modulus of elasticity [N/mm2]

10 

0

0.0 0.5 1.0 1.5 2.0 2.5

### Dynamic test: sinusoidal excitation with an oscilla- ting range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz

Quasistatic modulus of elasticity:

tangent modulus taken from the load delection curve

Test according to DIN 53513 Form factor q = 3

Speciic load [N/mm²]

## Natural frequency

2.5

2.0

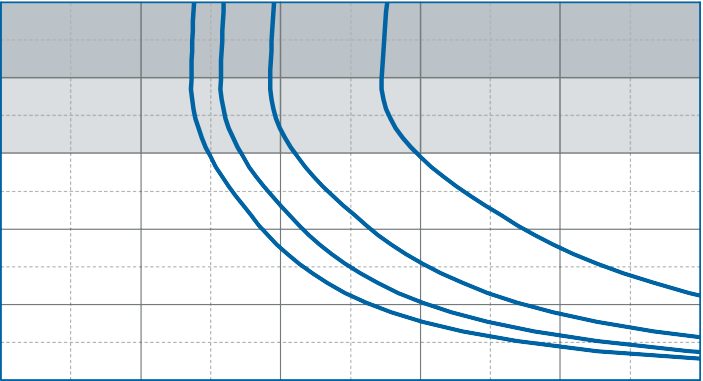
Speciic load [N/mm2]

1.5

1.0

0.5

0.0

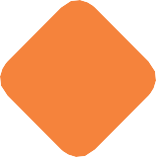
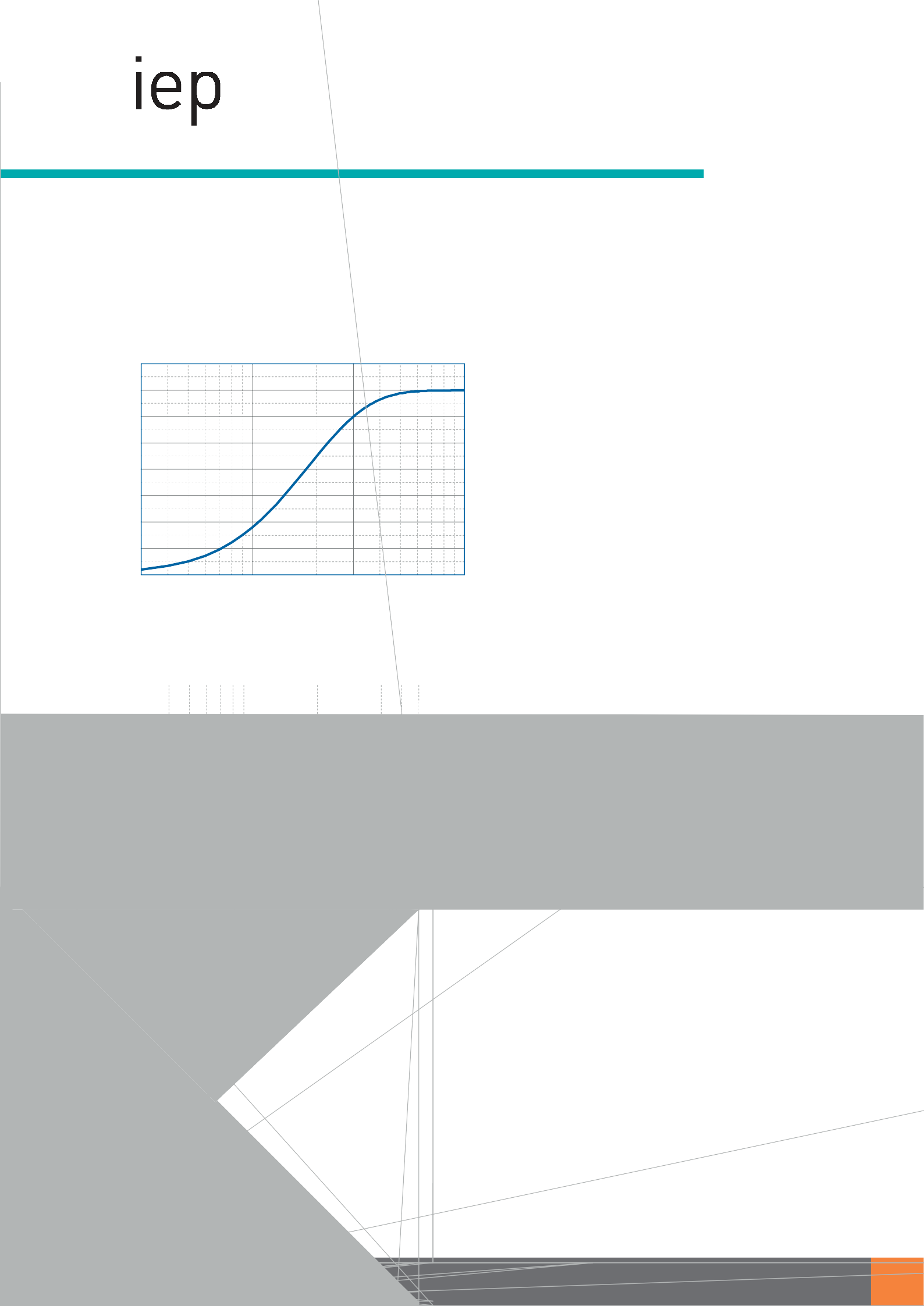
0 5 10 15 20 25

### Natural frequency of a single-degree-of-freedom system consisting of a ixed mass and an elastic bearing consisting of **Diepo**last dyn S 1500 on

a stiff subgrade. Form factor q = 3

Natural frequency [Hz]

D o**last** dyn **S**



**1500**

# Prod t t eet

## Correction values varying form factors

### pec ic load 1.50 N/mm², form factor q = 3

Static load range Deflection

1.7

1.6

1.5

1.4

1.3

1.2

1.1

1.0

0.9

0.3 1 **3** 10

### Dynamic modulus of elasticity at 10 Hz Natural frequency

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| Gmb o KG | 49356 ephol | Telef | 4 0 44 980-80 | Internet: w w p -poly eth n de |