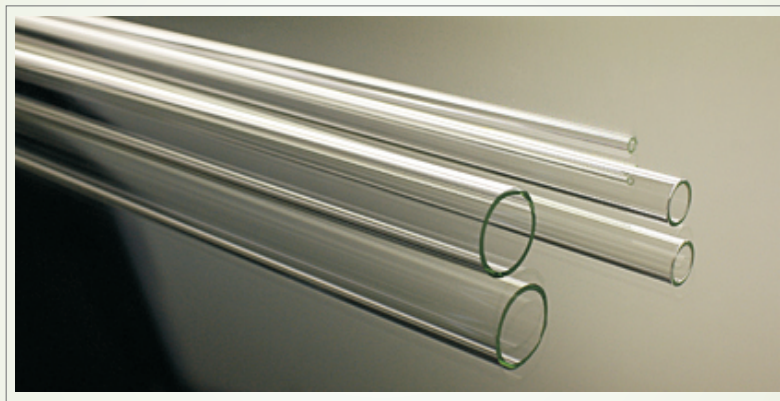


SPECIAL

GLASS TUBING

for
Halogen Lamps



TELUX

TELUX Spezialglas GmbH
Weißwasser
Germany

Index

TELUX Tube Type	TELUX Specification
LR 3,56x0,72x1219	WN 35-304
LR 8,80x0,94x1255	WN 35-201
LR 11,30x1,10x1245	WN 35-152
LR 12,07x0,97x1435	WN 35-111
LR 14,73x1,02x1435	WN 35-051
LR 15,60x1,20x1435	WN 35-057
LR 16,00x1,13x1435	WN 35-006
LR 16,00x1,20x1435	WN 35-005
LR 18,50x1,30x1435	WN 35-351

Manufactory Standard

TELUX Spezialglas GmbH Weißwasser	Hard glass tubes LR 3,56 x 0,72 x 1219 - Exhaust tubing - Technical specification of supply	WN 35 - 304
		Edition: 01.07 Replacement for edition: 09.00 Date of the Germ. Edition.: 31.01.2007 Date of the English Edition.: 31.01.2007
Customers specific dates: Customers name: Customers marking:	Customers-Code:	

Binding from: 01.02.2007

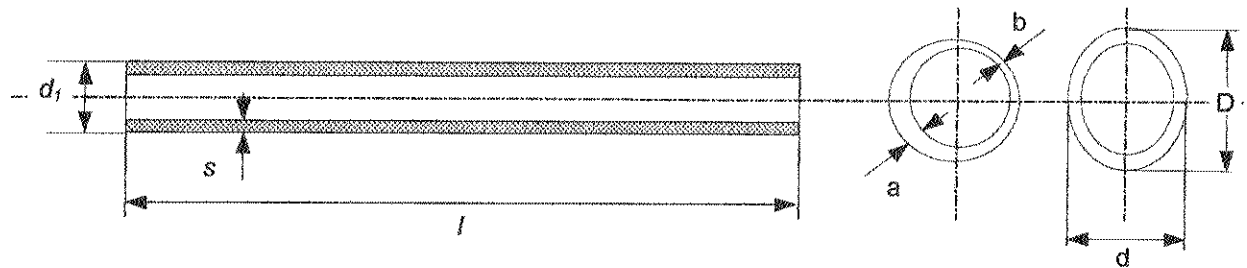
Technical specification for supply and acceptance for Hard Glass Tubes which is used by TELUX GmbH, Weißwasser for manufacturing of tungsten halogen lamps.

1 Designation

Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .

2 Technical parameters

2.1 Dimensions (in mm)



Outer diameter d_1	=	$3,56 \pm 0,10$
Wall thickness s	=	$0,72 \pm 0,08$
Siding Δs	=	max. 0,08
Length l	=	$1219 \pm 25,4$
Ovality	=	max. 0,05

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Confirmed at: 31. Jan. 2007

Article no.: 07-150-ALL

Manufactory Standard

TELUX Spezialglas GmbH Weißwasser	Hard glass tubes LR 8,80 x 0,94 x 1255 Technical specification of supply	WN 35 - 201
		Edition: 01.09 Replacement for edition: -----
Customers specific dates: Customers name: Customers marking:	Customers-Code:	Date of the Germ. Edition: 21.01.09 Date of the English. Edition: 21.01.09

Binding from: 01.02.2009

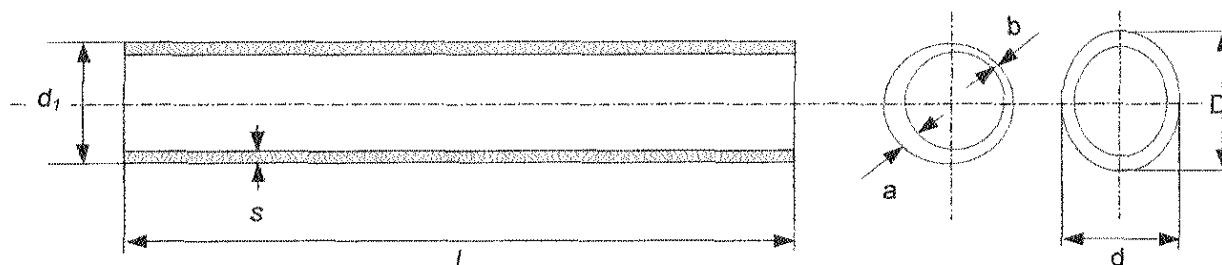
Technical specification of supply and acceptance for Hard Glass Tubes which is produced by TELUX Spezialglas GmbH, Weißwasser for manufacturing of tungsten halogen lamps.

1 Designation

Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .

2 Technical parameters

2.1 Dimensions (in mm)



Parameter	Demands
Outer diameter d_1	$8,80 \pm 0,15$
Wall thickness s	$0,94 \pm 0,08$
Siding Δs ($\Delta s = a - b$)	max. 6% (0,06 mm) of the nominal value of the wall thickness
Out of round (Ovality = $D - d$)	max. 1% (0,08 mm) of the nominal value of the outside diameter
Length l	$1255 \pm 2,00$
Bow	max. 1,0 mm over a length 1000 mm
End squareness	$\leq 0,5$ mm

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Confirmed at: 21. Jan. 2009

Item no.: 07-200-PHP

Manufactory Standard

TELUX Spezialglas GmbH Weißwasser	Hard glass tubes LR 11,30 x 1,10 x 1245 Technical specification of supply	WN 35 - 152 Edition: 01.08
	Customers specific dates: Customers name: Customers marking:	Customers-Code:

Binding from: 01.02.2008

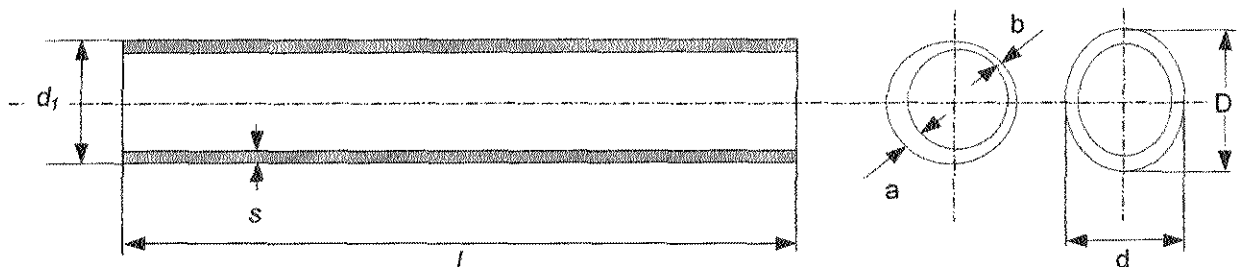
Technical specification of supply and acceptance for Hard Glass Tubes which is produced by TELUX Spezialglas GmbH, Weißwasser for manufacturing of tungsten halogen lamps.

1 Designation

Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .

2 Technical parameters

2.1 Dimensions (in mm)



Outer diameter d_1	:	$11,30 \pm 0,15$
Wall thickness s	:	$1,10 \pm 0,08$
Siding Δs	:	max. 0,08
Length l	:	1245 ± 3
Out of round	:	max. 0,12
Bow	:	1,3 mm over a length 1000 mm

Continuation page 2 to 4

Confirmed at: 28. Jan. 2008

Article no.: 07-305-OSH

Manufactory Standard

TELUX Spezialglas GmbH Weißwasser	Hard glass tubes LR 12,07 x 0,97 x 1435 Technical specification of supply	WN 35 - 111 Edition: 05.07 Replacement for edition: 03.07
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Customers specific dates: Customers name: Customers marking:	Customers-Code: Date of the Germ. Edition.: 30.05.2007 Date of the English. Edition.: 30.05.2007
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Binding from: 01.06.2007

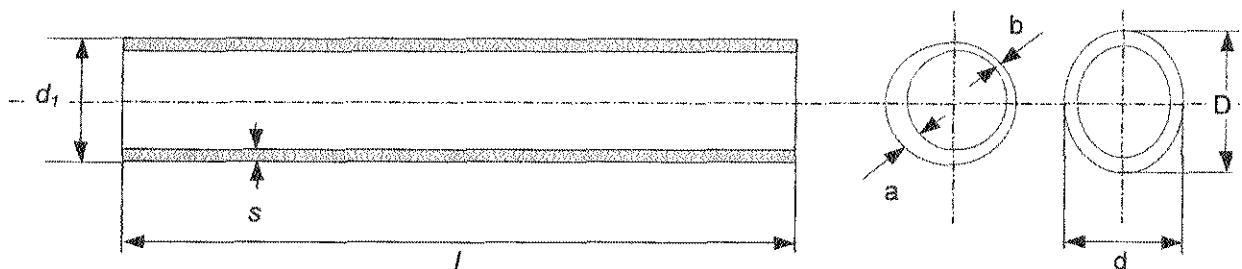
Technical specification for supply and acceptance for Hard Glass Tubes which is produced by TELUX GmbH, Weißwasser for manufacturing of tungsten halogen lamps.

1 Designation

Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .

2 Technical parameters

2.1 Dimensions (in mm)



Outer diameter d_1	12,07 ± 0,15
Wall thickness s	0,97 ± 0,07
Siding Δs	max. 0,08
Length l	1435 ± 3,18
Ovality	max. 0,12
Bow	1,1 mm over a length 1000 mm
End squareness (trimmed and glazed)	max 0,71

Continuation page 2 to 4

Confirmed at: 19.05.2007 <i>[Signature]</i>	Article no.: 07-320-ALL
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Factory Standard

TELUX Lampenrohr GmbH Weißwasser	Hard glass tubes LR 14,73 x 1,02 x 1435 Technical specification of supply	WN 35 - 051 Edition: 09.08 Replacement for edition: 09.02
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Customers specific dates: Customers name: Customers marking:	Customers-Code:	Date of the Germ. Edition.: 24.09.2008 Date of the English. Edition.: 24.09.2008
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Binding from: 01.10.2008

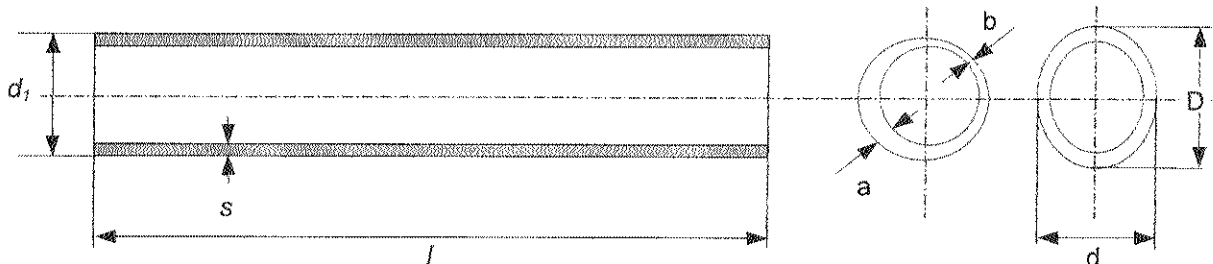
Technical specification for supply and acceptance for Hard Glass Tubes which is produced by TELUX GmbH, Weißwasser for manufacturing of tungsten halogen lamps.

1 Designation

Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .

2 Technical parameters

2.1 Dimensions (in mm)



Parameter	Demands
Outer diameter d_1	$14,73 \pm 0,14$
Wall thickness s	$1,02 \pm 0,07$
Siding Δs ($\Delta s = a - b$)	max. 0,08
Out of round (Ovality = $D - d$)	max. 0,14
Length l	$1435 \pm 3,0$
Bow	max. 1,1 mm over a length 1000 mm
End squareness (trimmed and glazed)	max. 0,50

Continuation page 2 to 5

Confirmed at: 26. SEP. 2008	Item no.: 07-380-OSI
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Manufactory Standard

TELUX Spezialglas GmbH Weißwasser	Hard glass tubes LR 15,60 x 1,20 x 1435 Technical specification of supply	WN 35 - 057
		Ausgabe: 09.08 Ersatz für Ausgabe: -----
Customers specific dates: Customers name: Customers marking:	Customers-Code:	Datum der deutsch. Ausg.: 25.09.2008 Datum der englisch. Ausg.: 25.09.2008

Binding from: 01.10.2008

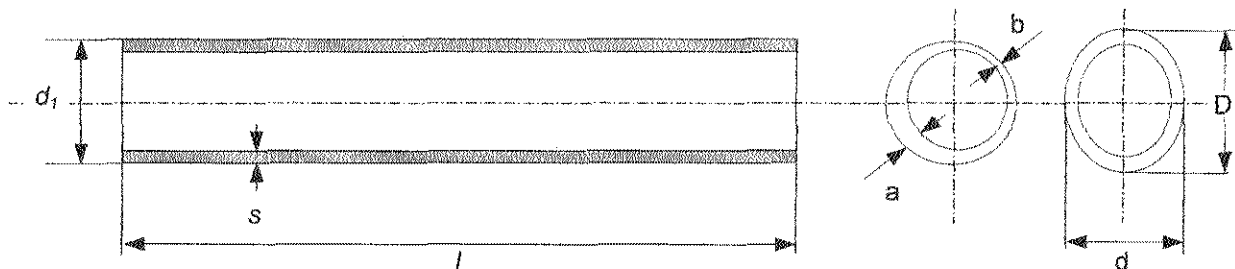
Technical specification for supply and acceptance for Hard Glass Tubes which is produced by TELUX Spezialglas GmbH, Weißwasser for manufacturing of tungsten halogen lamps.

1 Designation

Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .

2 Technical parameters

2.1 Dimensions (in mm)



Parameter	Demands
Outer diameter d_1	$15,60 \pm 0,15$
Wall thickness s	$1,20 \pm 0,08$
Siding Δs ($\Delta s = a - b$)	max. 0,09
Out of round (Ovality = $D - d$)	max. 0,12
Length l	$1435 \pm 3,0$
Bow	max. 1,1 mm over a length 1000 mm

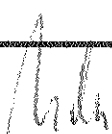
Continuation page 2 to 5

Confirmed at:

25. Sep. 2008

Item-no.:07-400-ALL

Manufactory Standard

TELUX Spezialglas GmbH Weißwasser	Hard glass tubes LR 16,00 x 1,13 x 1435 Technical specification of supply	WN 35 - 006 Edition: 11.06 Replacement for edition: 09.06
Customers specific dates: Customers name: Customers marking:	Date of the Germ. Edition.: 10.11.2006 Date of the English. Edition.: 10.11.2006	Binding from: 01.12.2006
Technical specification for supply and acceptance for Hard Glass Tubes which is produced by TELUX GmbH, Weißwasser for manufacturing of tungsten halogen lamps.		
1 Designation Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .		
2 Technical parameters 2.1 Dimensions (in mm)		
<p>The drawing consists of three parts: a side view of the tube on the left showing outer diameter d_1, wall thickness s, and length l; a circular end view in the middle showing wall thickness a and a chamfered edge b; and a circular end view on the right showing the outer diameter D and the inner diameter d.</p>		
Outer diameter d_1	= $16,00 \pm 0,15$	
Wall thickness s	= $1,13 \pm 0,08$	
Siding Δs	= max. 0,09	
Length l	= $1435 \pm 3,2$	
Ovality	= max. 0,16	
Bow	= 1,1 mm over a length 1000 mm	
End squareness (trimmed and glazed)	= max 0,71	
Confirmed at: 10. Nov. 2006 		Continuation page 2 to 5 Article no.: 07-410-ALL

Manufactory Standard

TELUX Spezialglas GmbH Weißwasser	Hard glass tubes LR 16,00 x 1,20 x 1435 Technical specification of supply	WN 35 - 005 Edition: 08.07 Replacement for edition: 10.06 Date of the Germ. Edition.: 08.08.2007 Date of the English. Edition.: 08.08.2007
Customers specific dates: Customers name: Customers marking:	Customers-Code:	

Binding from: 01.09.2007

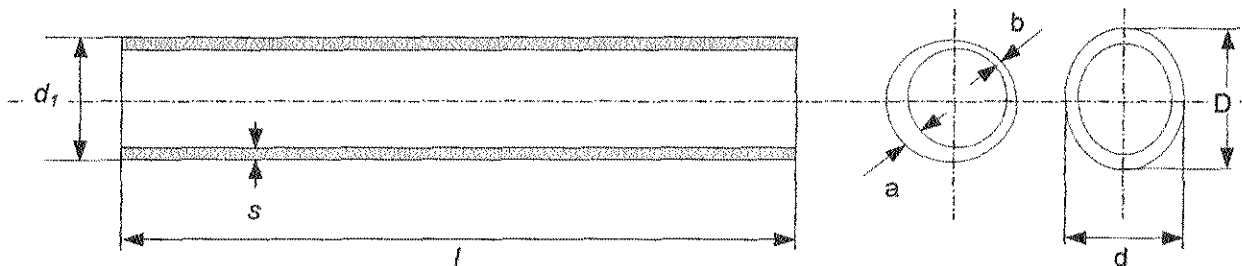
Technical specification for supply and acceptance for Hard Glass Tubes which is produced by TELUX Spezialglas GmbH, Weißwasser for manufacturing of tungsten halogen lamps.

1 Designation

Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .

2 Technical parameters

2.1 Dimensions (in mm)



Outer diameter d_1	:	16,00 ± 0,18
Wall thickness s	:	1,2 ± 0,10
Siding Δs	:	max. 0,10
Length l	:	1435 ± 3,2
Out of round	:	max. 0,16
Bow	:	1,5 mm over a length 1000 mm
End squareness (trimmed and glazed)	:	max 1,0 mm

Continuation page 2 to 5

Confirmed at: 08. Aug. 2007

Article no 07-410 GEH

Manufactory Standard

TELUX Lampenrohr GmbH Weißwasser	Hard glass tubes LR 18,50 x 1,30 x 1435 Technical specification of supply	WN 35 - 351
		Edition: 09.08 Replacement for edition: design 01.08
Customers specific dates: Customers name: Customers marking:	Customers-Code:	Date of the Germ. Edition: 25.09.2008 Date of the English. Edition: 25.09.2008

Binding from: 01.10.2008

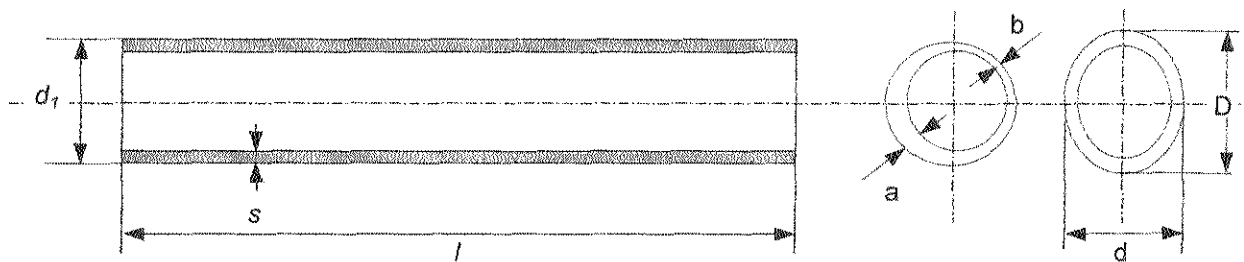
Technical specification for supply and acceptance for Hard Glass Tubes which is produced by TELUX GmbH, Weißwasser for manufacturing of tungsten halogen lamps.

1 Designation

Designation of a tube for manufacturing of tungsten halogen lamps with an outer diameter d_1 , a wall thickness s and a tube length l .

2 Technical parameters

2.1 Dimensions (in mm)



Parameter	Demands
Outer diameter d_1	$18,50 \pm 0,18$
Wall thickness s	$1,30 \pm 0,08$
Siding Δs ($\Delta s = a - b$)	max. 0,09
Out of round (Ovality = $D - d$)	max. 0,18
Length l	$1435 \pm 3,0$
Bow	max. 1,1 mm over a length 1000 mm
End squareness (trimmed and glazed)	max. 1,0

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Confirmed at:

[Signature] 25. Sep. 2008

Articel no.: 07-450-ALL

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