

# LABSOLUTE® CONDENSER ACC. TO ALLIHN with PP olives

# Properties / Helpful hints:

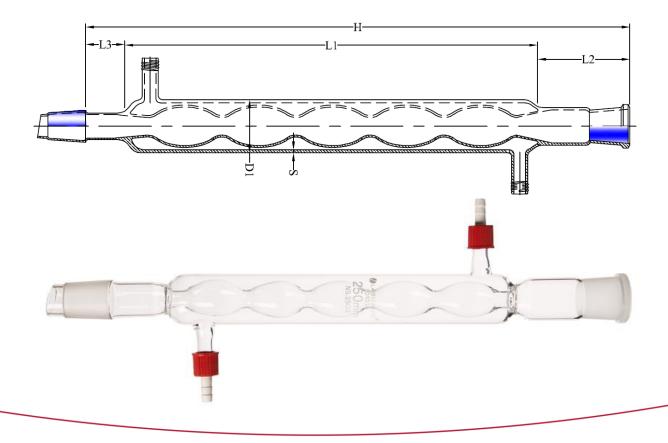
- Made of borosilicate glass 3.3
- According to DIN 12581
- With PP olives and GL14 screw connectors
- Perfect chemical resistance
- High temperature resistance

Perfect for the use in field of distillation, chemical synthesis and reflux boiling.

The choice of the right condenser type depends on the boiling point of the used substances. The longer a condenser is, the higher is its cooling power.

A tube (for example made of natural rubber or silicone) is recommended to connect a condenser with PP olives to the water tap. If you have a condenser with glass olives a tube with an internal diameter of 8-9 mm should be used. Please use a suitable hose clamp to protect the tube against slipping off from the olives.

# Technical drawing / picture:



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# Value table:

Item no.	NS	L1 mm	L2 mm	L3 mm	Ø mm	S mm	<b>N</b> <sub>Sphere</sub>
7.690 330	29/32	160	60	30	30	2.0	4
7.690 331	29/32	250	80	40	40	2.3	5
7.690 332	29/32	400	80	40	40	2.3	8

# Description of the abbreviations in the value table:

ltem no.	Item number
NS	Nominal size of the ground joint of socket and cone
L1	Length of the cooled area in millimeter (mm)
L2	Length above the cooled area in millimeter (mm)
L3	Length below the cooled area in millimeter (mm)
Н	Total length of the condenser in millimeter (sum of L1 + L2 + L3; mm)
Ø	Diameter of the condenser in millimeter (mm)
S	Minimum thickness of the glass in millimeter (mm)
n <sub>Sphere</sub>	Number of the spheres inside the condenser

# Physical properties of borosilicate glass 3.3 acc. to ISO 3585:

Property	Value
Linear coefficient of thermal expansion $\alpha$ (20°C;300°C) acc. to ISO 7991	3.3 10 <sup>-6</sup> K <sup>-1</sup>
Transformation temperature Tg	525 °C
Permitted max. working temperature	500 °C
Density $\rho$ (20 °C)	2.23 g/cm <sup>3</sup>
Coefficient of thermal conductivity $\lambda$ (20 to 100 °C)	1.2 Wm <sup>-1</sup> K <sup>-1</sup>
Hardness (according to Mohs)	6°
Refractive index nD ( $\lambda$ = 587.6 nm)	1.473

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