



Technical data sheet for spherical Dewar flasks out of glass type 21 - 24 AL

Area of application

- Laboratory technique
- medicinal technique
- Biotechnology
- storing and company internal short-distance transport
- for liquid nitrogen (Ln₂)
- pressure-less space for coolants

Features of performance

- reliably and economically
- Dewar flasks according to DIN 12492
- glass material according to ISO 3585
- nominal capacity from 1 to 10 litres
- protective casing out of aluminium, brushed



Spherical Dewar flask 23 AL

Description of complete flasks

Types and accessories

- AL = protective casing out of aluminium, brushed
- carrying handle = pure aluminium
- lid = aluminium casing with PU inlet
- Shock rubber = cellular rubber

Temperature ranges

- glass refill from -200°C to + 150°C
- lid from -200°C to + 80°C
- casing with mounting rubber and Latizell buffer from -10°C to + 60°C

Pressure range

- pressure - less

Description of glass Dewar flask

Material

- borosilicate glass 3.3 ISO 3585

Chemical characteristics

- hydrolytic resistance: according to ISO 719 (98°C)
- hydrolytic resistance: according to ISO 720 (121°C)
- acid resistance: according to ISO 1776
- alkaline resistance: according to ISO 695-A2

Physical characteristics

- linear expansion coefficient: $3,3 \times 10^{-6} \text{ 1/K}$
(in between 20-300°C)
- density: $2,23 \text{ g/cm}^3$
- specific thermal capacity: 910 J/kg K
- transformation temperature: 525°C

Vacuum

- $> 5 \times 10^{-6} \text{ mbar}$

Silvering

- fully silvered

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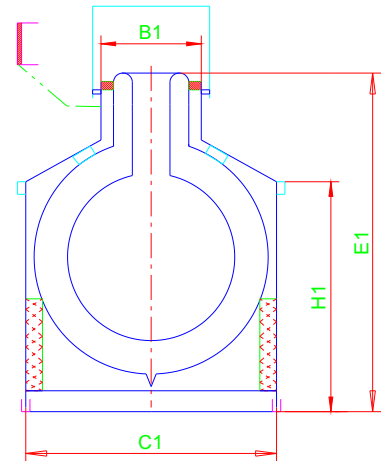
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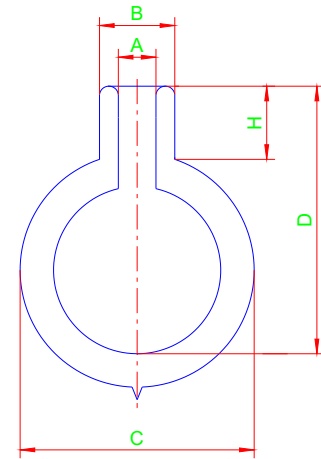
Special types

- Spherical Dewar flask with viewing stripes



Safety advises and regulations

- always wear protective glasses and protective gloves
- national regulations for laboratories
- company- internal regulations
- safety regulations for handling with liquid gases
- ADR regulations



Measurements and order data

Technische Angaben / Technical Specifications / Caractéristiques techniques										
Typ	max. Inhalt	A	B	C	D	H	B1	C1	H1	E1
Type	max. Content									
Types	Capacité max.									
	ca. [L]	mm	mm	mm	mm	mm	mm	mm	mm	mm
21 AL	1	30	50	165	235	70	60	175	150	300
22 AL	3	60	85	205	305	110	105	225	210	380
23 AL	5	60	85	250	350	110	105	260	275	450
24 AL	10	65	95	310	380	85	105	330	310	480
							Artikel-Nummern			
Typ	max. Inhalt	Gewicht	Standzeit LN2	Verdampfungsrate LN2						
Type	max. Content	Weight	Holding time LN2	Evaporation rate LN2		Typ	Artikel Nr.			
Types	Capacité max.	poids	Autonomie LN2	Taux d' évaporation LN2		Type	Article No.			
	ca. [L]	ca. [kg]	ca. [d]	ca. [L / d]		Types	Référence			
21 AL	1	1,6	5	0,2		21 AL	1291			
22 AL	3	3,1	7	0,4		22 AL	1292			
23 AL	5	4,4	12	0,4		23 AL	1293			
24 AL	10	6,6	16	0,6		24 AL	1294			