



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

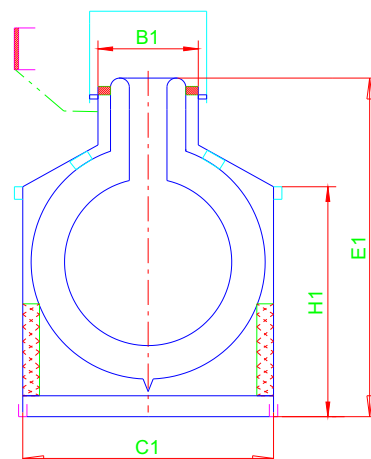
- fully silvered



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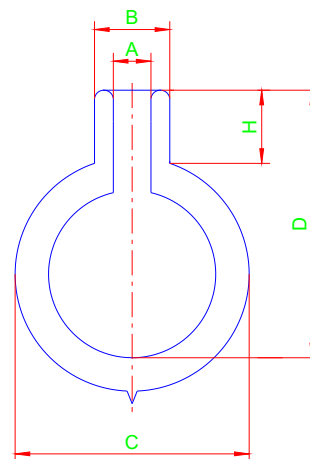
Special types

- 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 / Caratéristiques 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		Article numbers / Référence				
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			

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