

Heraeus

DRYING OVENS FOR COATINGS HERAEUS® LUT 6050 AND LUT 6050 F

Highest safety for your laboratory



Quality Products – Lifetime Care

 Kendro

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The drying of lacquers and other coating materials is inherently hazardous because the released solvents can form explosive gases with air.

The Heraeus® LUT Drying Oven Series has been specially developed for these drying processes.

LUT 6050:

for installation in a normal environment, complies with protection category IP 22.

LUT 6050 F:

for installation in areas exposed to fire risks (e.g. where lacquers are handled). Model LUT 6050 F complies with protection category IP 54.

The European Norm 1539

The edition of January 2000 includes technical statutes for equipment which are met by both the Heraeus LUT 6050 and LUT 6050 F models:

- ventilation of interior before heating is activated
- technical ventilation
- controlled air circulation and exhaust air
- overtemperature protection
- low temperature of the outer casing
- list of maximum admissible amounts of solvents across the entire temperature range
- compliance with protection category IP 54 covering installation in areas exposed to fire risks (LUT 6050 F only)

The Safety Concept

In order to prevent the formation of an explosive atmosphere, it is necessary to rarefy the solvent vapors with fresh air. For this purpose, both LUT 6050 and LUT 6050 F are equipped with two radial fans. The fresh air is filtered and preheated before it enters the chamber. An efficient air circulation fan provides adequate airflow to mix the heated fresh air with the solvent vapors, thereby avoiding the formation of dangerous "vapor pockets". A monitoring system constantly checks the oven atmosphere. It reacts instantly to any disturbance in the air supply system, e.g. a fan failure, and disconnects the heater. The ovens feature a temperature limit cut-out which protects both the unit and the load against fires. Optical and acoustic alarms are triggered to indicate any kind of failure in the units.



DRYING WITHOUT RISK

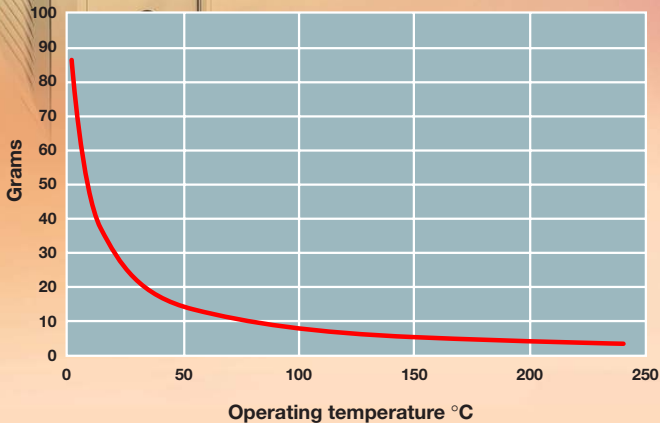


Avoiding the formation of "vapor pockets" by a well directed air supply system



LUT 6050 F

Max. admissible amount of solvents per load



Efficient

In routine operation, the ovens are loaded and unloaded several times a day. Samples at ambient temperature need to be heated-up quickly.

In order to optimise drying times, the heating power and the air supply of both the LUT 6050 and LUT 6050 F is rated such that introduced samples are rapidly heated-up to working temperature.

Fully equipped

Both the LUT 6050 and LUT 6050 F come standard with:

- Kelvitron® microprocessor controlled temperature controller
- temperature limit cut-out
- optical and acoustic alarm system
- readjustable door
- stainless steel drip pan

Reliable and precise

For the drying and baking of lacquers and glues, spatial temperature distribution is crucial. The specific air circulation of both the LUT 6050 and LUT 6050 F prevents the uncontrolled penetration of cold ambient air and eliminates interference with the prevailing temperature inside.

Thus the instruments achieve a very good spatial temperature deviation of ± 2 K at 250 °C.

Functional

The inner chamber and all fittings are made of stainless steel (1.4301). Insulating materials are free of surface-active substances, i.e. no silicone is used .

Easy-to-service

- Air intake-filters can be easily replaced from the front
- Service and maintenance contracts available on request

TECHNICAL DATA LUT 6050 AND LUT 6050 F

		LUT 6050	LUT 6050 F
Rated temperature	°C	250 ¹⁾	250 ¹⁾
Temperature deviation (spatial) ²⁾	K	± 2	± 2
Temperature deviation (time) ²⁾	K	< ± 0.3	< ± 0.3
Volume	l	105	105
Shelves	no. (max.)	2 (9)	2 (9)
Dimensions (W x D)	mm	405 x 448	405 x 448
Useful area/shelf	cm ²	1,800	1,800
Internal dimensions (W x H x D)	mm	435 x 500 x 480	435 x 500 x 480
External dimensions (W x H x D) incl. door handle	mm	790 x 815 x 730	860 x 815 x 730
Exhaust air socket Ø	mm	100	100
Net weight	approx. kg	80	80
Rated power	kW	3.2	3.2
Power consumption at rated temperature	kWh/h	2.5	2.5
Heating-up time to 250 °C	min	< 60	< 60
Rated voltage	V (AC)	230	230
Rated frequency	Hz	50/60	50/60
Total vapor space	l	120	120
Exchanges of air	pro min	4.2	4.2
Min. exhaust air volume	m ³ /h	30	30
Average air velocity	m/s	1.0 ± 0.2	1.0 ± 0.2
Admissible amount of solvents at 130 °C operating temperature ³⁾	g	6.5	6.5
Protection category in acc. with DIN 40 050 Part 1		IP 22	IP 54

¹⁾ 300 °C on request ²⁾ in acc. with DIN 12 880 Part 2 at rated temperature


³⁾ pure flammable solvent (calculated in accordance with EN 1539); further information see graph page 3

ORDERING INFORMATION


	Order number
LUT 6050	50049643
LUT 6050 F	50049644
Additional wire-mesh shelf, incl. 2 shelf supports	50047470



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