



MATERIALS CRUCIBLE LINERS

- Temescal & Telemark Liners H 03
- Satis Liners H 05
- Crucible Liners Selection Table H 06

Crucible liners protect the water-cooled copper hearth in electron beam units and eliminate the risk of contamination when one material replaces another in a given pocket. They also minimize heat transfer between the evaporated material and the water-cooled crucible. They reduce time of clean up and material changes and help increase deposition rates.

Liners can be manufactured from Graphite, Molybdenum, Tantalum and most other metals as well as from Al_2O_3 , BN and other non-metals. The choice of the liners depends on the material to be evaporated.



Temescal & Telemark Liners

DIMENSIONS

DESIGNATION	DIMENSIONS in mm		ANGLE
	UPPER DIAMETER	HEIGHT	
4cc crucible	22.48	14.61	15°
7cc crucible	29.64	14.30	15°
15cc crucible	37.59	17.02	15°
25cc crucible (4 pockets)	46.99	17.27	15°
40cc crucible	50.80	26.97	15°

Other dimensions on request.

TABLE OF EQUIVALENCES

VOLUME	MATERIAL	PART NUMBER NEYCO	TEMESCAL EQUIVALENCE	TELEMARK EQUIVALENCE
4 cc	Graphite	LC4CC	-	271-7004-1
	Poco Graphite	LC4CC	-	-
	Tungsten	LW4CC	-	271-7005-9
	Molybdenum	LMO4CC	-	271-7004-3
	Alumina	LAL4CC	-	271-7005-5
	Vitreous Carbon	LCV4CC	-	271-7005-8
	Reinfiltred Graphite	LCR4CC	-	271-7004-6
	Boron Nitride	LBN4CC	-	271-7005-1

VOLUME	MATERIAL	PART NUMBER NEYCO	TEMESCAL EQUIVALENCE	TELEMARK EQUIVALENCE
7 cc	Graphite	LC7CC	0627-6172-1	271-7007-1
	Poco Graphite	LC7CC	9998-9004-0	-
	Tungsten	LW7CC	0627-6152-1	271-7008-9
	Molybdenum	LM07CC	0627-6162-1	271-7007-3
	Alumina	LAL7CC	-	271-7008-5
	Vitreous Carbon	LCV7CC	-	271-7008-8
	Reinfiltred Graphite	LCR7CC	-	271-7007-6
	Boron Nitride	LBN7CC	-	271-7008-1
15 cc	Graphite	LC15CC	0627-6172-3	271-7015-1
	Poco Graphite	LC15CC	9998-9013-0	-
	Tungsten	LW15CC	0627-6152-3	271-7016-9
	Molybdenum	LM015CC	0627-6162-3	271-7015-3
	Alumina	LAL15CC	-	271-7016-5
	Vitreous Carbon	LCV15CC	-	271-7016-8
	Reinfiltred Graphite	LCR15CC	-	271-7015-6
	Boron Nitride	LBN15CC	-	271-7016-1
25 cc (4 pockets)	Graphite	L4PC25CC	0627-6172-5	271-7025-1
	Poco Graphite	L4PC25CC	0515-2212-1	-
	Tungsten	L4PW25CC	0627-6152-5	271-7026-9
	Molybdenum	L4PM025CC	0627-6162-5	271-7025-3
	Alumina	L4PAL25CC	-	271-7026-5
	Vitreous Carbon	L4PCV25CC	-	271-7026-8
	Boron Nitride	L4PBN25CC	-	271-7026-1
25 cc (6 pockets)	Graphite	L6PC25CC	0627-6172-6	271-7025-2
	Poco Graphite	L6PC25CC	-	-
	Tungsten	L6PW25CC	0627-6152-6	271-7027-9
	Molybdenum	L6PM025CC	0627-6162-6	271-7025-4
	Alumina	L6PAL25CC	-	271-7027-5
	Vitreous Carbon	L6PCV25CC	-	271-7027-8
	Boron Nitride	L6PBN25CC	-	271-7027-1
40 cc	Graphite	LC40CC	0627-6172-7	271-7040-1
	Poco Graphite	LC40CC	9998-9008-1	-
	Tungsten	LW40CC	0627-6152-7	271-7041-9
	Molybdenum	LM040CC	0627-6162-7	271-7040-3
	Alumina	LAL40CC	-	271-7041-5
	Vitreous Carbon	LCV40CC	-	271-7041-8
	Boron Nitride	LBN40CC	-	271-7041-1

Others sizes (13 cc, 18 cc, 30 cc, 156 cc...) and materials (Intermetallic, Copper, Tantalum...) on request.

All NEYCO Graphite crucibles and liners are *Electronic Quality* - ashes < 5 ppm -

Satis Liners

DIMENSIONS

VOLUME	MATERIAL	PART NUMBER NEYCO	SATIS EQUIVALENCE
4 cc	Molybdenum	LM04CCS	A1500295H-015M
7 cc	Molybdenum	LM07CCS	A1500295H-019M
10 cc	Molybdenum	LM010CCS	A1500295H-020M
18 cc	Molybdenum	LM018CCS	A1500295H-018P

Others sizes (1.5 cc, 2.85 cc, 28 cc...) and materials (Intermetallic, Copper, Tantalum...) on request.


Crucible Liners Selection Table


EVAPORATION MATERIAL	LINERS							
	C	VC	Al ₂ O ₃	BN	Mo	Ta	Int	W
Aluminum Al	•						•	
Aluminum Fluoride AlF ₃	•							
Aluminum 2% Silicon Al/Si	•						•	
Antimony Sb	•		•	•				
Antimony Oxide Sb ₂ O ₃			•	•				
Antimony Sulfide Sb ₂ S ₃			•					
Arsenic As	•	•	•					
Arsenic Sulfide As ₂ S ₃					•			
Barium Oxide BaO			•					
Beryllium Be	•	•						
Bismuth Bi		•	•					
Bismuth Selenide BiSe ₃	•							
Bismuth Telluride BiTe ₃	•							
Cadmium Cd			•					
Cadmium Selenide CdSe			•					
Cadmium Sulfide CdS	•		•					
Calcium Ca			•					
Cerium Ce		•	•					
Cerium Oxide CeO ₂	•							
Chromium Cr	•	•						
Cobalt Co			•					
Copper Cu	•		•		•	•		
Copper Oxide Cu ₂ O			•					
Cryolite Na ₃ AlF ₆	•	•						
Europium Eu			•					
Europium Oxide EuO ₃								•
Gadolinium Gd			•					
Gallium Ga	•	•	•					
Gallium Arsenide GaAs	•							

EVAPORATION MATERIAL	LINERS							
	C	VC	Al ₂ O ₃	BN	Mo	Ta	Int	W
Germanium Ge	•		•					
Germanium Oxide GeO ₂		•	•					
Gold Au	•	•	•	•				
Indium In	•		•		•			
Indium Oxide In ₂ O ₃			•					
Iridium Ir								•
Iron Fe		•	•					
Lanthanum La			•					
Lead Pb	•		•					
Lithium Li			•					
Lithium Fluoride LiF			•					
Lutetium Lu			•					
Magnesium Mg		•	•					
Magnesium Fluoride MgF ₂			•					
Magnesium Oxide MgO	•		•					
Manganese Mn			•					
Molybdenum Mo	•							
Molybdenum Oxide MoO ₃			•		•			
Neodymium Nd			•					
Neodymium Fluoride NdF ₃			•					
Neodymium Oxide Nd ₂ O ₃								•
Nichrome IV Ni/Cr	•	•	•					
Nickel Ni		•	•					
Nickel Oxide NiO			•					
Palladium Pd	•		•					
Palladium Oxide PdO			•					
Permalloy Ni/Fe		•	•					
Platinum Pt	•							•
Praseodymium Oxide Pr ₂ O ₃								•
Rhodium Rh		•						•
Samarium Sm			•					
Samarium Oxide Sm ₂ O ₃								•
Scandium Sc			•					
Selenium Se	•	•	•					
Silicon Si		•				•		
Silicon Dioxide SiO ₂	•		•					
Silicon Monoxide SiO	•					•		
Silver Ag	•	•	•		•			
Strontium Sr		•						
Tantalum Ta	•							
Tantalum Oxide Ta ₂ O ₅		•						
Tellurium Te	•	•	•					
Terbium Tb			•					
Thallium Tl			•					
Thorium Fluoride ThF ₄		•						
Thulium Tm			•					
Tin Sn	•		•					

EVAPORATION MATERIAL	LINERS							
	C	VC	Al ₂ O ₃	BN	Mo	Ta	Int	W
Tin Oxide SnO ₂			•					
Titanium Ti	•							
Titanium Oxide TiO	•	•						
Yttrium Y			•					
Yttrium Oxide Y ₂ O ₃	•							
Zinc Zn			•					

C = Graphite, **VC** = Vitreous Carbon, **BN** = Boron Nitride, **Int** = Intermetallic (BN + TiB₂).
 All given data are indicative and may need to be adapted to your process.

 See Section C - Pellets in this catalogue about evaporation materials.

 See Section M - Deposition Sources in this catalogue about E-Guns and E-Guns & spare parts.