





Designed for similar performance as the iconic va-Q-tainer, the va-Q-pal®

can be used wherever a typical hard-shell multi-use container is difficult to return. With its capability to be requalified by measurements va-Q-pal® is easily ready for a second life or more.

"With our passive technology and technology are technology as the second second

The container is the perfect solution for "difficult to return destinations", emergency cases, last minute demands or seasonal peaks in shipments. Always ready to go! "With our passive technology and expertise, we provide our clients with cost-efficent, safe and green packaging."

The combination of lightweight and Dr Joachim Kuhn, Founder & C

high thermal performance is outstanding. The container pays back easily due to its low weight compared to all other active containers. In most cases the delta in shipment costs for the lightweight container already balances it's purchasing costs.



Designed for door-to-door transport to remote locations



Ready for a second life: re-qualification with va-Q-check® and re-use of components is possible



Qualified performance: >96h (according to ISTA 7D, summer & winter profile), performance against other industry standards: >168h



Qualified temperature ranges: from -25 °C to +25 °C



Dry ice free



Space saving: 4 units fit on a PMC pallet



Smooth and cost saving operation: Available as assembly kit (with intuitive design & all-season packout) or as "ready to load & go" delivery



Core Components & Technology "MADE IN GERMANY"

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va-Q-pal®

Color coded va-Q-accus Re-qualifyable High-Tech with transparent shell insulation material: qualified for temperature Vacuum Insulation Panels ranges from -25°C (without dry ice) to +25°C 97% recycled disposable material Unique barcode iden- < tiefier with production date, preconditioning etc. info Honey comb cardboard protection layer Durable pallet with forklift inserts on all four sides Foam tape exclude any heat bridges Space for an US pallet: -1200 x 1000 mm Maximum load: Compact assembly kit size xxx kg / xxx lbs

va-Q-accu +22G va-Q-accu +05G va-Q-accu -21G for +15 °C to +25 °C for +2 °C to +8 °C for -25 °C to -15 °C

Other temperature ranges available on request (e.g. body temperature, deep frozen, etc.), below -60 °C with dry ice.

va-Q-pal® data

Including	External Dimensions (I x w x h)		Internal Product Space (I x w x h)		Payload Volume		Total Weight		Volumetric Minimum performation weight		<u>performance</u>
	[cm]	[inch]	[cm]	[inch]	[m³]	[ft³]	[kg]	[lbs]	[kg]	[hours]	[KelvinHours] ¹
va-Q-accu +22G²	147 x 124 x 158	57.9 x 48.8 x 62.2	127 x 104 x 127	50.0 x 40.9 x 50.0	1.68	59.3	190	418.9	480	≥ 142	≥ 1377
va-Q-accu +05G²	147 x 124 x 158	57.9 x 48.8 x 62.2	127 x 104 x 127	50.0 x 40.9 x 50.0	1.68	59.3	190	418.9	480	≥ 97	≥ 2454
va-Q-accu -21G²	147 x 124 x 158	57.9 x 48.8 x 62.2	127 x 104 x 127	50.0 x 40.9 x 50.0	1.68	59.3	230	507.1	480	≥ 80	≥ 3992

Real test example -



■ Time between +2.0 °C and +8.0 °C: **108 hours**

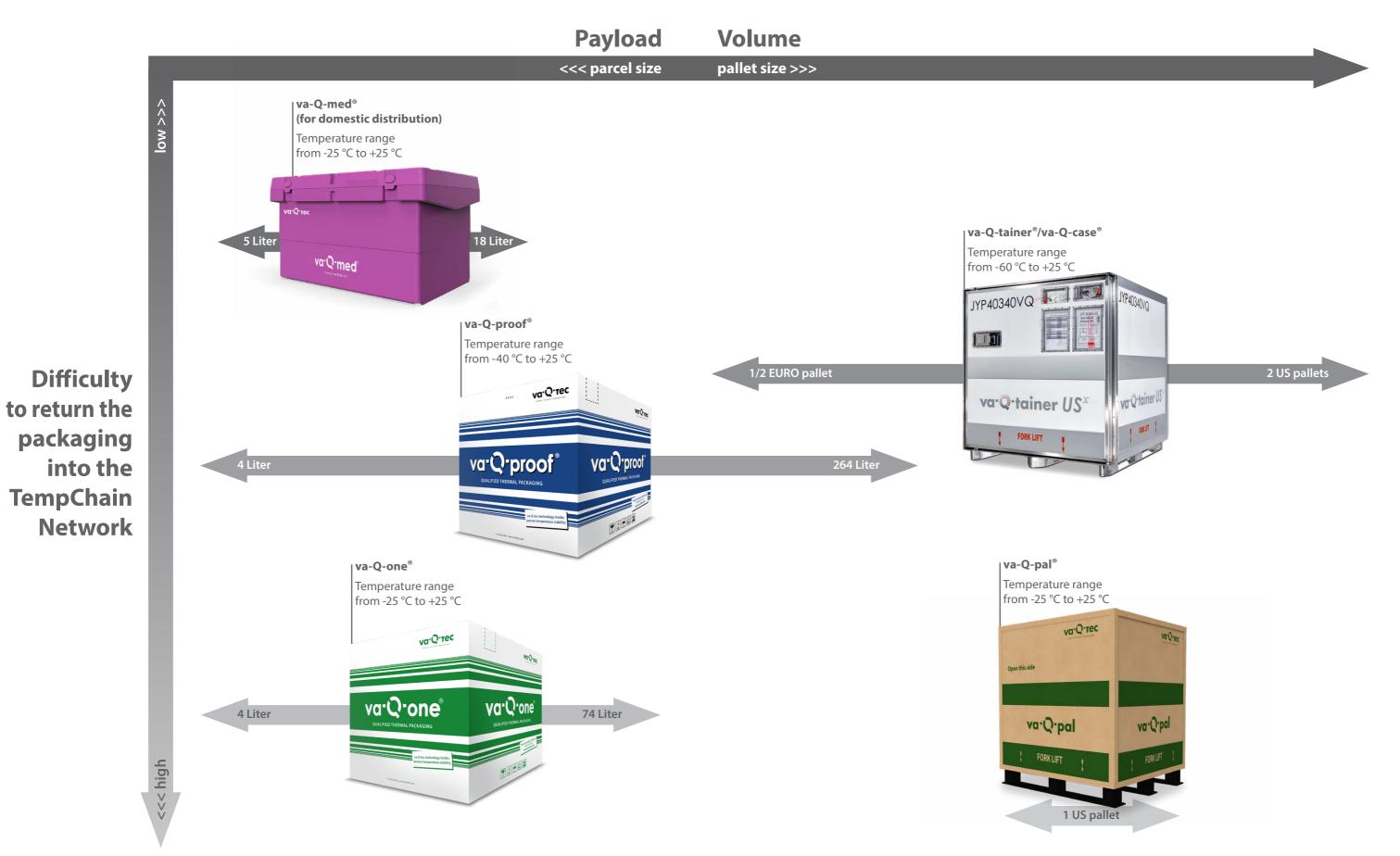




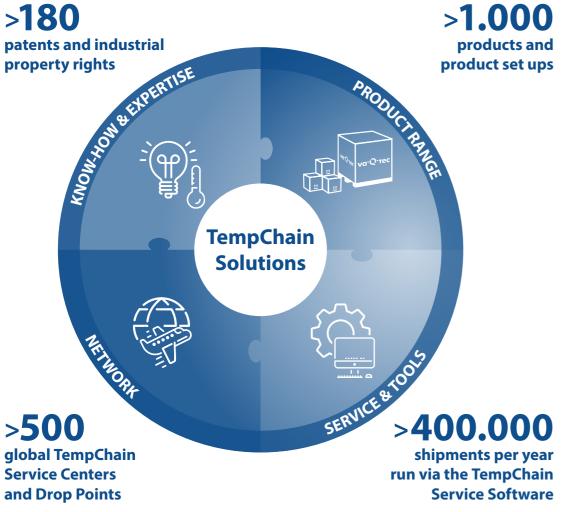
¹ The easy way to reliably compare thermal packaging solutions: More information at www.va-Q-tec.com/en/consulting/kelvinhours/

² Qualified test scenario according to ISTA 7D summer

The most comprehensive thermal packaging portfolio









va-Q-tec pioneered TempChain **Know-how & Expertise** already since 2003 by creating the first passive PCM/VIP thermal packaging Solutions. Therefore the company is able to provide extensive engineering consulting and professional laboratory service.



All temperatures and all volumes can be served from va-Q-tec's comprehensive **Product range**. Even the most challenging destinations.



More than 1.5 Mio. boxes and containers have been pre-conditioned in va-Q-tec's qualified TempChain **Service**. This process is enabled by unique **Tools** such as the patented quality control system va-Q-check*.



In va-Q-tec's TempChain **Network**, 2.000 containers and several 10.000 boxes can secure global availability and quick delivery from 35 TempChain Service Centers worldwide.



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