

ULTIMATE SOLUTION FOR SAVING ENERGY

# HYPER-VAX

HIGH PERFORMANCE FUMED SILICA VIP

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**KD ONE**

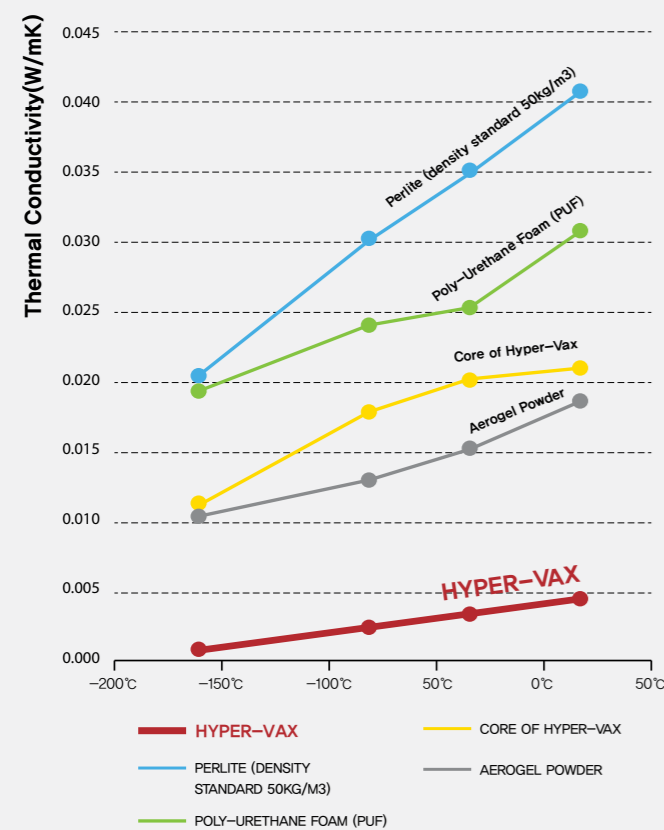
# HYPER-VAX

HIGH PERFORMANCE FUMED SILICA VIP

New insulation system solution for  
Emission Control Area regulations



\* Comparison of Thermal Conductivity in Cryogenic environments



## ※ What is VIP?

VIP stands for Vacuum Insulation Panels, which consist of a core covered with a metalized film. This system is evacuated to a vacuum below 3 torr and sealed after that. It has excellent thermal conductivity because there is no convection inside of VIP.

## FEATURES OF HYPER-VAX

**HYPER-VAX** is a high performance vacuum insulation panel especially works well in cryogenic environments. It is made up of a fumed silica core and covered with metalized film strengthened by glass fiber.

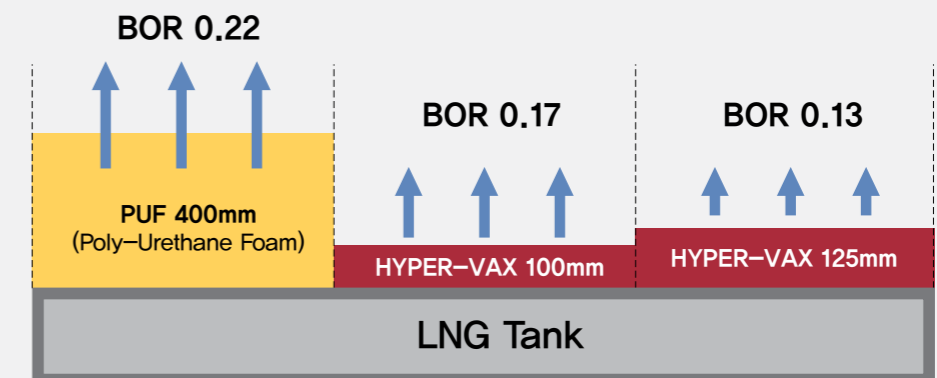
**HYPER-VAX** can be used where cryogenic environments are necessary such as LNG bunkering vessel, fuel storage tank for LNG fuelled vessel, LNG carrier and etc. It has much better performance and high efficiency compared with conventional cryogenic insulations.

**HYPER-VAX** is manufactured by KD ONE's patented technology and possible to be produced in different shapes applicable for complicated structure.

**HYPER-VAX** provides the best insulation system solution for Emission Control Area regulations.

## THICKNESS COMPARISON

\* Comparison of HYPER-VAX vs PUF in BOR(Boil off Ratio) Simulation



\* [Legend based 6,700m<sup>3</sup> type C LNG tank]

Item	PUF	HYPER-VAX	
Insulation Thickness (mm)	400	100	125
BOR (%/day)	0.22	0.17	0.13

※ After installing **HYPER-VAX 100mm**, decreasing 75% of insulation thickness and improving 20% of thermal efficiency compared with PUF.

※ After installing **HYPER-VAX 125mm**, decreasing 65% of insulation thickness and improving 40% of thermal efficiency compared with PUF.