





WINCELL

AIRCRAFT CARRIER QUALITY INSULATION



WINCELL AIRCRAFT CARRIER QUALITY INSULATION

Wincell Insulation group was founded in 1996, specialized in the rubber insulation, glass wool insulation, cladding protection, composite duct, exterior wall thermal insulation, sound acoustic insulation, noise reduction, and other products with innovation and upgrade, Wincell insulation has now grown to be one of the world's largest high-quality insulation materials production enterprises.

Wincell branch factories are located in Taixing, Jiangsu, Zho ngshan, Guangdong, Wuhan, Hubei, South Korea, Brazil, etc. The products are being exported to Europe, America, Oceania, the Middle East, Asia and the Pacific, widely used in various industries all over the world, involved in the tens of thousands of engineering projects, become one of the most famous brand in heat preservation industry. It is committed to expand the adiabatic markets around the world.Let the world share Wincell Insulation.

7 PRODUCTION BASES







ncell Insulation Manufacturing Center Wincell Guangdong Park







Shandong Huaying New Material Co., Ltd. Wincell Korea Bases

Wincell Brazil Bases

7 PRODUCTS SERIES







U-PVC Cladding









Composite Duct

Building Floor Insulation

WINCELL INTERNATIONAL APPROVAL







ISO9001













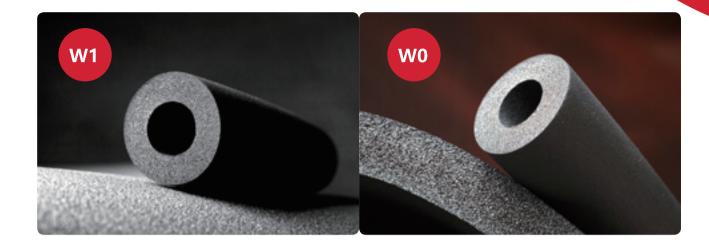


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Class1 & Class0 Testing Report

AS/NZS 1530.3:1999

W 01



"Wincell Class1" W1

Based on the NBR, the Wincell Class1 Insulation uses the advanced "Gel Foaming" Technology, to form the completely closed foam structure, which has good performance of low thermal conductivity, excellent resistant of water vapor and fire performance. There are two kinds of products—tube and sheet. It is easy to install, safe and environmental protection. The insulation materials are suitable for the water pipe and air pipe in HVAC system, cooling and heating equipments, hot water pipe, to guarantee the tightness of the whole system.

"Wincell Class0" W0

Based on the NBR, the Wincell Class0 Insulation uses the advanced "Gel Foaming" Technology, to form the completely closed foam structure. It has passed the test of BS476 Part6 / Prat7, getting the BS certification. The unique raw materials promote good fire performance with low smoke and safe prosperities.

TECHNICAL PERFORMANCE OF W1/W0

Physical Properties		Wincell	Product W	/1	Wincell Product W0			
Cell Structure		Closed cell			Closed cell			
Density Kg/m³		55±5			55±5			
Thermal Conductivity	Mean Temp	-4°F(-20°C)	32°F(0°C)	104°F(40°C)	-4°F(-20°C)	32°F(0°C)	104°F(40°C	
BTU.in/ft2.hr.oF W/(m·k)	K-value	0.22(0.030)	0.23(0.032)	0.26(0.037)	0.22(0.030)	0.23(0.032)	0.26(0.037)	
Water Vapor Permeability	g/(m·s·Pa)	1.96x10 ⁻¹¹			1.3x10 ⁻¹¹			
Moisture Resistance(µ valu	ıe)	µ ≥ 10000			μ ≥ 15000			
		V-0			V-0			
		25/50			25/50			
Flammability Smoke Densi	ity	Self Extingu	ishing		Self Extinguishing			
		Class 1			Class 0			
		Pass			Pass			
Water absorption(weight S	%)	≤ 5			≤ 5			
Flexibility		Excellent	Excellent			Excellent		
Ozone Resistance		No crack	No crack			No crack		
Serviec Temperature		-70°F to 257°F (-57°C to +125°C)			-70°F to 257°F (-57°C to +125°C)			

Wincell WF compound insulation is based on WFA metal compound layer, WFC compound layer and WFB compound layer which perfectly combined with Wincell insulation materials by special technology, to improve completely all of the performance of rubber insulation. It has perfect fire performance, resistant of water vapor penetration, strong tear resistant properties and anti-aging performance.

Wincell compound insulation has already become the ideal insulation materials in many filed. It can meet the application demands of food production plant, pharmacy factory, electronic and clean rooms.



TECHNICAL PERFORMANCE OF WFA/WFB/WFC/WFD

Physical Properties		Wincell		Test Method			
Cell Structure		Closed cell					
Density Kg/m ³		55±5			ASTM D 1667		
Thermal Conductivity	Mean Temp	-4°F(-20°C)	32°F(0°C)	104°F(40°C)	ACTN 4 C177 0, C510		
BTU.in/ft2.hr.oF W/(m·k)	K-value	0.22(0.030)	0.23(0.032)	0.26(0.037)	ASTM C177 & C518		
Water Vapor Permeability	g/(m·s·Pa)	9.8x10 ⁻¹²			ASTM E96		
Moisture Resistance(µ valu	ne)	µ ≥ 20000		DIN 52615			
		V-0		UL-94			
		25/50		ASTM E84			
Flammability Smoke Dens	ity	Self Extingu	ishing	ASTM D635			
		Class 1		BS 476:Part 7 & Part 6			
		Pass		IMO FTPC Annex 1 Part 5			
Water absorption(weight	%)	≤ 5		ASTM D1056			
Flexibility		Excellent					
Ozone Resistance		No crack		ASTM D1171			
Serviec Temperature		-70°F to 257	7°F (-57°C to -				



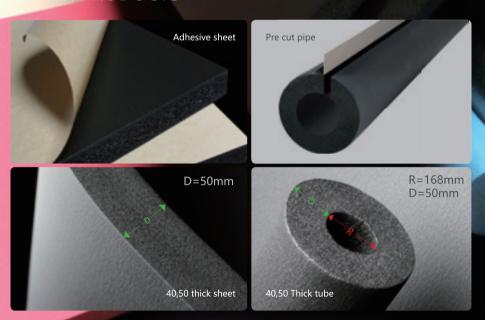
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WINCELL COLOURFUL INSULATION MATERIALS





ER PRODUCTS



ACCESSORIES



Wincell W1/OT W1/OS **SPECIFICATION**

Wincell · Aircraft Carrier Quality Insulation



W1S/W0S/WFA/WFB/WFC/WFD Tube specifications

Pipelir	ne Mode	el 💮	Model		THK										
Seamless Steel Tube	Steel Tube	Gal. Pipe	ID mm	6mm	9mm	13mm	15mm	20mm	25mm	30mm	32mm	35mm	38mm	40mm	50mm
	1/4″		6 1/4"	06006	09006	13006	15006	20006	25006	1					
	3/8″	DN6	10 3/8"	06010	09010	13010	15010	20010	25010	30010					
	1/2″		13 1/2"	06013	09013	13013	15013	20013	25013	30013	32013				
15	5/8″	DN8	16 5/8"	06016	09016	13016	15016	20016	25016	30016	32016				
	3/4″		19 3/4"	06019	09019	13019	15019	20019	25019	30019	32019				
22	7/8″	DN15	22 7/8"	06022	09022	13022	15022	20022	25022	30022	32022				
25	1″		25 1"	06025	09025	13025	15025	20025	25025	30025	32025				
28	1-1/8″	DN20	28 1-1/8"		09028	13028	15028	20028	25028	30028	32028	35028			
32	1-1/4″		32 1-1/4"		09032	13032	15032	20032	25032	30032	32032	35032			
	1-3/8″	DN25	35 1-3/8"		09035	13035	15035	20035	25035	30035	32035	35035			
38	1-1/2"		38 1-1/2"		09038	13038	15038	20038	25038	30038	32038	35038			
	1-5/8″	DN32			09043	13043	15043	20043	25043	30043	32043	35043	38043	40043	50043
45	1-3/4"		43 1-5/8"		09045	13045	15045	20045	25045	30045	32045	35045	38045	40045	50045
	1-7/8″	DN40	45 1-3/4"		09048	13048	15048	20048	25048	30048	32048	35048	38048	40048	50048
	2-1/8"		48 1-7/8"		09054	13054	15054	20054	25054	30054	32054	35054	38054	40054	50054
57	2-1/4"		54 2-1/8"		09057	13057	15057	20057	25057	30057	32057	35057	38057	40057	50057
	2-3/8"	DN50	57 2-1/4"		09060	13060	15060	20060	25060	30060	32060	35060	38060	40060	50060
			60 2-3/8"		09067	13067	15067	20067	25067	30067	32067	35067	38067	40067	50067
76		DN70	67 2-5/8"		09076	13076	15076	20076	25076	30076	32076	35076	38076	40076	5007
89		DN80	76 3"		09089	13089	15089	20089	25089	30089	32089	35089	38089	40089	50089
108			80 3-1/4"		09108	13108	15108	20108	25108	30108	32108	35108	38108	40108	50108
		DN100	85 3-3/8"					20114	25114	30114	32114	35114	38114	40114	50114
133			89				į.	20133	25133	30133	32133	35133	38133	40133	50133
		DN125	108					20140	25140	30140	32140	35140	38140	40140	50140
159			115 4-5/8'			ļ	4	20159	25159	30159	32159	35159	38159	40159	50159
		DN150	165					20168	25168	30168	32168	35168	38168	40168	50168

[•] Tips: Red models should be longer lead time

W1S/W0S/WFA/WFB/WFC/WFD Sheet specifications

Spec	Thickness	Length	Width
W1S6	6mm	20m	1.5m
W1S10	10mm	20m	1.5m
W1S13	13mm	15m	1.5m
W1S15	15mm	15m	1.5m
W1S19	19mm	10m	1.5m
W1S20	20mm	10m	1.5m
W1S25	25mm	10m	1.5m
W1S30	30mm	8m	1.5m
W1S32	32mm	8m	1.5m
W1S35	35mm	5m	1.0m
W1S38	38mm	5m	1.0m
W1S40	40mm	5m	1.0m
W1S50	50mm	2m	1.0m

Spec	Thickness	Length	Width
W0S6	6mm	20m	1.5m
W0S10	10mm	20m	1.5m
W0S13	13mm	15m	1.5m
W0S15	15mm	15m	1.5m
W0S19	19mm	10m	1.5m
W0S20	20mm	10m	1.5m
W0S25	25mm	10m	1.5m
W0S30	30mm	8m	1.5m
W0S32	32mm	8m	1.5m
W0S35	35mm	5m	1.0m
W0S38	38mm	5m	1.0m
W0S40	40mm	5m	1.0m
W0S50	50mm	2m	1.0m

WFA/C/B 10	10mm	2m	1.2m
WFA/C/B 13	13mm	2m	1.2m
WFA/C/B 15	15mm	2m	1.2m
WFA/C/B 19	19mm	2m	1.2m
WFA/C/B 20	20mm	2m	1.2m
WFA/C/B 25	25mm	2m	1.2m
WFA/C/B 30	30mm	2m	1.2m
WFA/C/B 32	32mm	2m	1.2m
WFA/C/B 35	35mm	2m	1.0m
WFA/C/B 38	38mm	2m	1.0m
WFA/C/B 40	40mm	2m	1.0m
WFA/C/B 50	50mm	2m	1.0m

[•] For special specifications, please contact our sales department.



Replace the metal covering materials and overturn the traditional covering materials.



APPLICATION

U-PVC Insucover can be widely used in commercial, industrial and civil indoor/outdoor. The colorful U-PVC Insucover is not good for outdoor. The adoptable covering tube and equipment temperature range for U-PVC Insucover is from -37° C to 260°C, but the surface temperature of the insulation layer should be less than 66° C (National standard is less than 50° C)



Micro electronics, photovoltaic and food, beverage and light industry.



p-pharmaceutical, il construction, drilling platform



industry, newly built/ reconstruction plant, covering insulation for tank. Insucover is a new type of light, clean, anti-acid and anti-alkali, durable insulation covering material for tube and equipment. It is suitable for the GMP and FDA requirement and it is the covering protection product specialized for insulation material against the mechanical damage and outdoor weather resistant. This product supplies the economic and effective protection for the insulation material. It is easy to install.

Insucover is a kind of special PVC material, which has the perfect performance of anti-UV, anti aging and anti tear strength, it belongs to the nonflammable material, used for varies tubes and equipments insulation/covering protection of cooling system. It can replace all kinds of metal covering materials and applied in the field of pharmacy, food, chemical, electronic, commercial and industry, etc.

PRODUCT ADVANTAGES

- 1. Clean and beautiful—good toughness, anti pressing, flushing, seamless
- 2. Less consumes and labor saving—molding shape, easy installation, no need of large equipment.
- 3. Anti-corrosion and long life span—anti-acid, anti-alkali, anti-UV, anti aging and weather resistance.

 4.Anti-static high-isolate —Electrically non-conductive insulation material, which lower down the risk on construction.

















nsulation covering

iging nti-UV

Fire gra

10 years

ears e span

stallation

nti pressing nd automatio



Wincell Insucover

Wincell · Aircraft Carrier Quality Insulation





Wincell Insucover

Wincell · Aircraft Carrier Quality Insulation



RESISTANT TO ACID, ALKALI EXPERIMENT

The experiment in strong alkali, after 240 hours immersion(PH=14), the colorful steel, Aluminum, stainless steel and PVC Insucover, only PVC insucover no changes, all the other materials have different degree of corrosion.

The experiment in strong acid, after 240 hours immersion(PH=1), the colorful steel, Aluminum, stainless steel and PVC Insucover, only PVC insucover no changes, all the other materials have different degree of corrosion.





PH=14 Alkali reagent

PH=1 Acid reagent

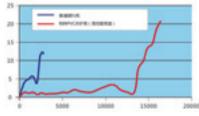
ANTI-AGING, ANTI-UV

Insucover covering material is the special insulation covering material with the perfect resistance of acid and alkali, it is the different from the traditional materials because it adds the anti-UV and anti aging component.

According to the international standard of ISO 4892-2, the experiment in the WEATHER-O-METER aging oven to test the weather resistance, more than 2000 hours of test exposed under simulated climate situation which is equivalent to the condition of exposed outside 10 years, there is no obvious change.



Anti-UV radiation, fluorescent lamps and water spray.







2000 hours of test =10 years of exposed outside

Exposure field

ASTME84 APPROVAL

According to the ASTM-14, the test method of building material surface burning features, the fire spread index of insucover is 0, smoke development index is 35, which fits the grade A, the demand for FSI (0-25) and SDI (0-450)



ACCESSORIES AND PACKAGE



Special adhesive

A Quick-dry type, used for temporary fix, welding glue in the joint

spot.
B General type, used for the joint spot by successive glue.
C Filling type, used for the non-tight position of the package by U-PVC insucover.

Double side tape

Used to adhesive and fix the connection and laminated parts of U-PVC insucover.





Rivet/Screw

For disassembly occasions which need regular maintenance, after the alignment of the connective part of U-PVC insucover, press the screw into the materials directly with hand, keeping an interval about 15-20cm





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Wincell

WINCELL-DUCT SYSTEM EXPERTS

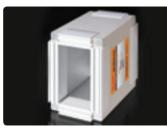
Wincell · Aircraft Carrier Quality Insulation



THE NEW GENERATION OF DUCT PRODUCT MODEL







WINCELL-DUCT WDFDC
Single side color steel phenolic composites duct



WINCELL-DUCT WDFSC Wincell Double-sided color phenolic composites duct

INDEX OF PHENOLIC COMPOUND DUCT SYSTEM

Performance Item	Technical specifications
Density	65-75kg/m ³
Thermal conductivity	0.022-0.025W/(m.k)
Oxygen index	50%
Smoke density Rank (SDR)	< 5
Combustion rank	Nom-combustible grade A
Bibulous rate	< 1.9%
Compressive strength	1.44~2.2Mpa
Anti-aging	10years anti-aging
operating temperature	-180°C ~180°C

SYSTEM PRODUCTS MODEL LIST

Model	Thickness	Size
WDF20SL	20mm	1200mm×4000mm
WDF25SL	25mm	1200mm×4000mm
WDF30SL	30mm	1200mm×4000mm
WDF20DC	20mm	1200mm×4000mm
WDF25DC	25mm	1200mm×4000mm
WDF30DC	30mm	1200mm×4000mm
WDF20SC	20mm	1200mm×4000mm
WDF25SC	25mm	1200mm×4000mm
WDF30SC	30mm	1200mm×4000mm
WDF20G	20mm	1200mm×4000mm
WDF25G	25mm	1200mm×4000mm
WDF30G	30mm	1200mm×4000mm

WINCELL-DUCT WINCELL MAIN ACCESSARIES

Accessories Model	Accessories Name	Unit	Matching/m ²
WD800	PPM connection flange	М	1.20
WD801	PZJ connection flange	М	0.15
WD802	PU connection flange	М	0.53
WD803	PGZ bigslip	М	0.60
WD804	PZ Sealing glue Angle	pcs	1.20
WD805	Zinc iron compensation Angle	pcs	2.40
WD806	Special phenolic system aluminum tin foil	М	0.11
WD807	Aluminum protection disc (gasket)	pcs	1.34(0.50)
WD808	Special composite glue	KG	0.23
WD809	Neutral mouldproof full-season using type sealant	purchase	0.14

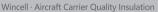
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W 13

Wincell^{*}

THE WGS AEAR GLASS WOOL BOARD





WGS WINCELL AEAR GLASS WOOL PERFORMANCE PARAMETERS

Performance Item	Perforr	nace Par	S	tandard				
Working temperature range	-18°C to	-18°C to +232°C				G	B/T 13350	
Corrosion resistance	No cher	nical reac	tion			G	B/T 13350	
The average fiber diameter µm	5-8					G	B/T 5480	
Content of slag ball (Particle diameter > 0.25 mm) %	≤ 0.3					GB/T 5480		
Moisture content%	≤ 1.0		G	B/T 16400				
moisture absorption %	≤ 5.0					G	B/T 5480	
Hydrophobic ratio %	≥ 98					G	B/T 10299	
unit weight (kg/m³)	32	40	48	56	64	G	B/T 13350	
The thermal loading shrinkage temperature °C	≥ 300	≥ 350	≥ 350	≥ 350	≥ 400	G	B/T 13350	
Thermal conductivity K(W/m. °C) average temperature70°C	≤ 0.042	≤ 0.040	≤ 0.040	≤ 0.039	≤ 0.039	G	B/T 13350	
Combustion performance rating	Incomb	Incombustible material					B 5464	
	Α					G	B 8624	

The average temperature means the arithmetical average of the duct inside air and outside air temperature, the above test conditions are without cover glass wool board. Data as the standard values,

Data sources: national glass fiber products quality supervision and inspection center test report

WGS WINCELL AEAR GLASS WOOL BOARD SPECIFICATIONS

Unite weight (kg/m³)	32	40	48	56	64	80	96	
Thickness (mm)		25	30)	40	50		
Wide (mm)				600				
Length (mm)				1200				

 $\label{packaging} \mbox{ Packaging for the plastic bag. Other specifications can be customized according to requirements.}$

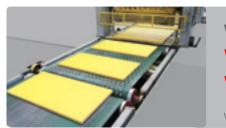
WGZ AEAR GLASS WOOL BLANKET PERFORMACE PARAMETERS

Performance Item	Perforn	nace Para	Standard			
Working temperature range	-4°C to -	+121℃			GB/T 13350	
Corrosion resistance	No chen	nical reacti	on		GB/T 13350	
The average fiber diameter µm	5-8				GB/T 5480	
Content of slag ball (Particle diameter > 0.25 mm) %	≤ 0.3				GB/T 5480	
Moisture content %	≤ 1.0	≤ 1.0				
moisture absorptio %	≤ 5.0				GB/T 5480	
Hydrophobic ratio %	≥ 98				GB/T 10299	
unit weight (kg/m³)	24	32	40	48	GB/T 13350	
The thermal loading shrinkage temperature °C	≥ 300	≥ 350	≥ 350	≥ 400	GB/T 13350	
Thermal conductivity K(W/m. °C) average temperature 70°C	≤ 0.047	≤ 0.048	≤ 0.048	≤ 0.043	GB/T 13350	
Combustion performance rating	Incombu	ustible mat	GB 5464			
	Α				GB 8624	

Test condition is without cover glass wool board. Data as the standard values. Data sources: national glass fiber products quality supervision and inspection center test report

WGZ WINCELL GLASS WOOL BLANKET SPECIFICATION

Unite weight (kg/m³)	24	32		40		48		
Thickness (mm)		25	30	40	50			
Wide (mm)	1200							
Length (mm)	10000-30000 (Decided by unite weight and thickness)							



Wincell^{*}

WGT WINCELL AEAR GLASS WOOL PIPE SHELL

Wincell · Aircraft Carrier Quality Insulation



WGT AEAR GLASS WOOL PIPE PERFORMACE PARAMETERS

Performance Item	Performa	Standard		
Working temperature range	-18°C to +3	343℃	GB/T 13350	
Corrosion resistance	No chemic	al reaction	GB/T 13350	
The average fiber diameter µm	5-8		GB/T 5480	
Content of slag ball (Particle diameter > 0.25 mm) %	≤ 0.3		GB/T 5480	
Moisture content %	≤ 1.0		GB/T 16400	
moisture absorptio %	≤ 5.0		GB/T 5480	
Hydrophobic ratio %	≥ 98			GB/T 10299
Unite Weight (kg/m³)	48	64	80	GB/T 13350
The thermal loading shrinkage temperature°C	≥ 400	≥ 400	≥ 400	GB/T 13350
Thermal conductivity K(W/m. °C) average temperature 70°C	≤ 0.043	≤ 0.043	≤ 0.043	GB/T 13350
Combustion performance rating	Incombust	ible material	GB 5464	
	Α	GB 8624		

WGT WINCELL AEAR GLASS WOOL PIPE SPECIFICATION

Unite Weight (kg/m³)	48 64		64	80			100	
Thickness (mm)	25	30	40	50	60	65	70	
Wide (mm)			100	00 1	200			
diameter (mm)	16-457							

Packaging for the plastic bag,Other specifications can be customized according to requirements Order please specify all kinds of pipe diameter, glass wool pipe shell wall thickness, bulk density, cover types







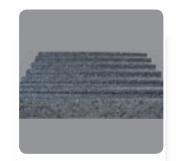


Packaging for the plastic bag. Other specifications can be customized according to requirements.

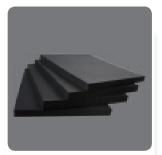


FLOATING FLOOR ACOUSTIC INSULATION SYSTEM

The ground insulation system of building floor is aimed at the sound insulation and insulation of high-rise residential buildings, hotels, schools, hotels and other places. To satisfy the need of energy conservation and heat preservation, build quiet and comfortable space again.



TPS moulded polystyrene floor acoustic insulation building system



EHS NM floor acoustic insulation building system



 $15 \text{ most advanced NBR rubber insulation production line,} 600000 \, \text{m}^{3} \text{ one year}$



 $\bf 2$ fiberglass production line, $\bf 30000$ ton one year



2 automatic rigid PU insulation panel production line, 200000 m² one year



1 advanced phenolic composite duct production line, 1500000 m² one year



2 TPS production line import from Korea, **200000**m³ one year

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TOP THREE GLOBAL AC MANUFACTURERS SELECTION

Wincell provide more than 90% NBR rubber insulation to Johnson Controls, TRANE, McQuay in China.



WINCELL, SELECTED BY FORTUNE 500







WINCELL, AIRCRAFT CARRIER-CLASS APPROVED QUALITY

APPLY TO THE FIRST CHINA AIRCRAFT CARRIER-LIAONING

Wincell insulation provide products and service for Liaoning Aircraft Carrier, approved by the strict China Navy and military system, always protecting and serve for the China Navy.

COMPANY EXPECTATION



















WINCELL has taken part in more than 15000 projects all over the world. Our rubber insulation has been widely used in the CBD, five-star hotel, financial building in China, American, Canada, France, Australia, South Korea, South Africa, Brazil&South America, Middle east, Southeast Asia, etc...



Saipan Grand Mariana



Dubai Ain Al Fayda



Subsea High Tech Center





Fabrica da Continetal Pneus - BA

Fabrica-jeep-em-pernambuco





Hospital da Mulher Recife - PE

Hospital Esperan Olinda - PE





Bangladesh Grand Sultan project

Pentaport - SK



CEF - S Luis - MA



Samsung Semiconductor

Charles darwin - PE, Maior torre empresarial do NE

W 23

24 W



Home Center Ferreira Costa Aracaju - SE



Hotel Praia Centro - CE



Lotte City Hotel



Novo Terminal Portuario Recife - PE



Museu Luiz Gonzaga - PE



NAVER company building



Hotel e Resort Enotel - Porto de Galinhas - PE Hotel Forte dos Reis - RN





Shopping Caxias - MA

Shopping Patteo Olinda - PE



OAB - Recife - PE





Seoul Distribution complex



Yoking Industrial Park

W 25 26 **W**



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