DRILLFAST

make it happen...

DFLEX ARMACELL

CERTIFIED ARMAFLEX DISTRIBUTOR

armacell®

ENHANCED PERFORMANCE AND INDOOR AIR QUALITY

Dflex Armacell is the preferred high-performance closed-cell foam insulation for heating, ventilation, and air-conditioning (HVAC) applications. This thermal insulation product fulfills the NFPA 274 requirements, a full-scale test simulating one of the most stringent fire environments in high-rise buildings and is infused with MICROBAN antimicrobial product protection.

Dflex Armacell is a thermal insulation material which is FM approved and provided with an independently verified Environmental Product Declaration (EPD) to support green building certification schemes. This closed-cell foam offers better indoor air quality with its GREENGUARD GOLD certification.

KEY FEATURES:

- Insulation material complies with National Construction Code (NCC)
- Fire-tested for vertical pipe chases to NFPA274
- Offers a closed-cell structure to minimise moisture penetration, removing the need for an additional water vapour barrier
- Reduces mould and bacteria growth through Microban antimicrobial product protection
- Free of fibre and formaldehyde, and Greenguard Gold Certified for low emissions of volatile organic compounds (VOC) for better indoor air quality
- Type III Environmental Product Declaration (EPD) and FM Approved
- Highly flexible closed cell elastomeric foam that can be installed quickly on irregular shapes and on applications in tight spaces
- Meets GBCA Green Star Insulant ODP requirements

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TECHNICAL PROPERTIES:

Property	Value/Assessment			Test standard
Temperature range	Max. service temperature	+105 °C	+85 °C if sheet or tape is glued to the object with its whole surface.	
	Min. service temperature	-50 °C		
Water vapour diffusion resistance				
Water vapour diffusion resistance factor	μ ≥ 7,000			DIN EN 13469, DIN EN 12086
Water absorption	< 0.2% by volume			ASTM C1763
UV resistance	For UV protection an Arma-Chek® covering is required. For outside use, ArmaFlex should be protected within three days of installation.			
Antimicrobial behaviour	Built-in Microban antimicrobial product protection: No fungal growth is observed.			ASTM G21
Health aspects	Free of fibre and formaldehyde. Low volatile organic compounds (VOC), low total aldehyde. GREENGUARD Gold for even lower VOC and total chemical emissions.			UL2818-2013

FIRE PERFORMANCE AND APPROVALS

Property	Value/Assessment		Test standard
Building Code of Australia (BCA)	Compliant with the requirements for fire hazard properties of insulation materials, as per Specification C1.10 - Clause 7 - of the National Construction Code Volume One (excluding fire control rooms and fire-isolated exits)		AS/NZS 1530.3:1999
Vertical pipe chase	Peak rate of heat release: Total heat release (THR_{10min}) Total smoke release (TSR_{10min}) Extent of flame	≤ 300kW ≤ 83MJ ≤ 500m² ≤ 0.3m (1ft)	NFPA 274
Flammability	V-0, FM-approved		UL 94, FM 4924
Practical fire behaviour	Does not generate flaming droplets.		

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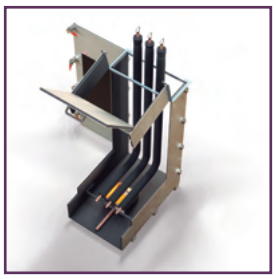
NFPA 274 STANDARD TEST METHOD:

The National Fire Protection Association (NFPA) is an international non-profit organisation that develops, publishes and disseminates fire risk consensus codes and standards.

The NFPA 274 Standard Test Method is a full-scale test that uses large samples to simulate how insulated pipes in a confined vertical configuration may behave during a growing fire situation. It may be a more realistic assessment as it reflects the actual installation configuration.



Insulated pipes are first inserted into a vertical pipe chase test chamber which mimics the actual pipe installation. A small, growing fire which escalates is placed directly underneath the pipes and the fire performance is observed. The test runs for 10 minutes and materials must pass the recommended performance criteria.

Material / Performance criteria	Peak heat release rate	Total heat release	Total smoke release	Extent of flame above pipe chase	Results
	[kW]	[MJ]	[m^2]	[m]	[Pass/ Fail]
Pass criteria	≤ 300	≤ 83	≤ 500	≤ 0.3	-
DFlex Armacell	✓	✓	✓	✓	✓
Foil-faced PE	✗	✓	✓	✗	✗
PE	✗	✗	✓	✗	✗

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