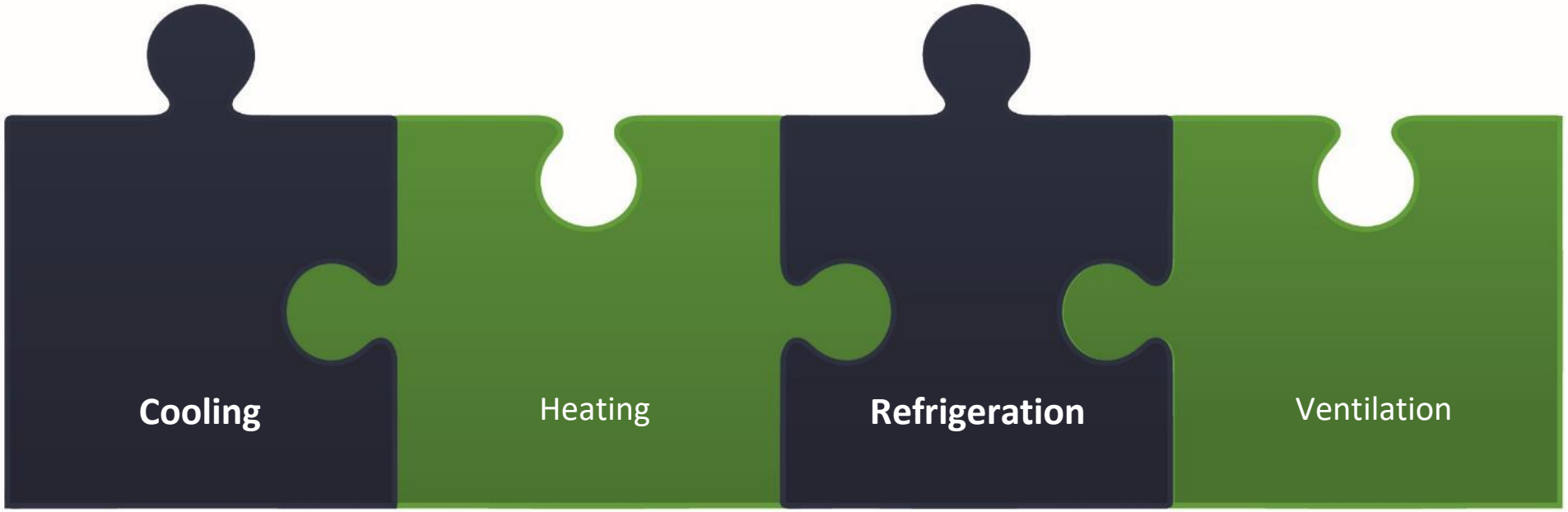

thermaflex
taking care of energy and the environment
Certified
B
Corporation

Applications: Insulation



thermasmart PRO

an innovative new material, based on thermoplastic elastomeric foams.

Thermaflex developed a thermoplastic elastomeric foam that provides superior product properties

thermasmart PRO

Advantages:

- Suitable for all HVAC applications
- Temperature range: -80°C till +95°C
- Improved flexibility compared to Thermoplastic Foam
- Good insulation properties
- Integral water vapor barrier, vapor cannot penetrate the insulation even when the skin is damaged
- High mu-value
- Closed cell structure; fungi and bacteria resistant.
- High mechanical strength; less damages and necessity for repair.
- Weldable system
- No stress crack corrosion compared to Elastomeric Foam
- Not much smoke development during fire
- No toxic smoke during fire
- High classification into international fire standards
- Wheelmark certification by Veritas; as one of the few insulation products suitable for shipping and off-shore. Including module D (third party control)
- 100% recyclable; in line with sustainable construction LEED/BREEAM.
- RoHS, Reach and VOC compliant; Cradle to Cradle Bronze certified

Disadvantages:

- Not (yet) as flexible as Elastomeric Foam

Applications: Insulation

Refrigeration

- Tanks (ammoniac, expansion, glycol etc.)
- Cold Storage

Chilled Water

- Drippans Fan & Coil
- Chillers
- Airhandlers
- Drainage
- Airducts

Hot Water

- Heat exchangers
- Condensation water

Insulation in pumps

Insulation in Valves

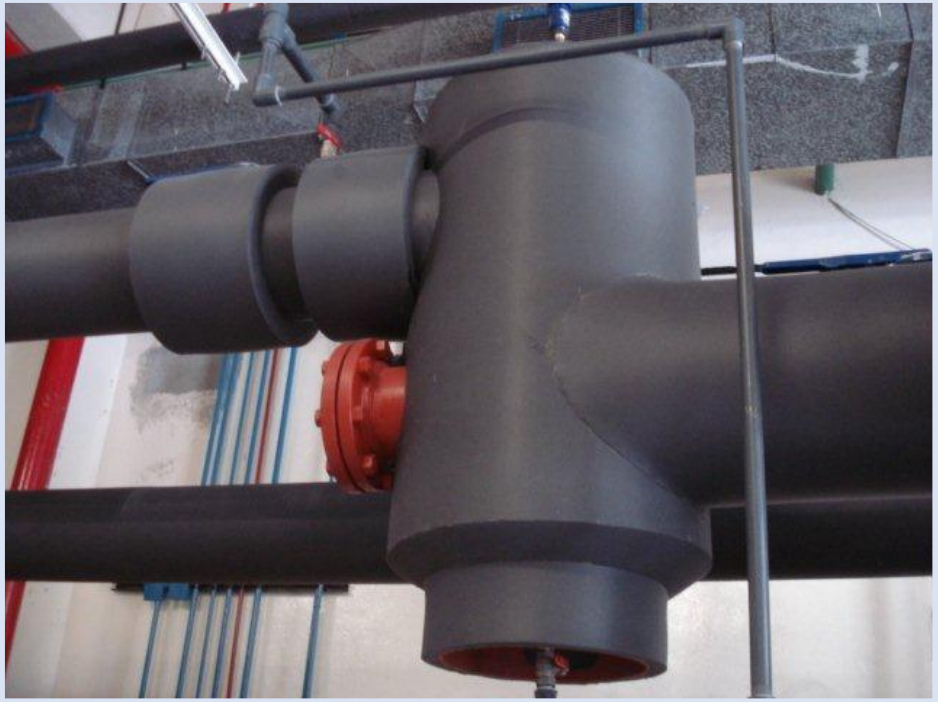
Insulation on chillers

Insulation in supports

Insulation on steel pipes

Insulation with aluminium foil / paint

Insulation on tanks



Insulation for different accessories

Insulation in machine rooms

Insulation on Ducts

Insulation for hot water

Insulation value

Influenced by:

1)	Convection	→	Cell size
2)	Conduction (solid)	→	Density
3)	Conduction (gas)	→	Type of gas
4)	Radiation	→	Reflective additives

Important for:

Energy savings
Prevention against condensation
Dimensions of product

Value:

ThermaSmartPRO: 0°C = 0,0341 W/mK 40°C = 0,0380 W/mk

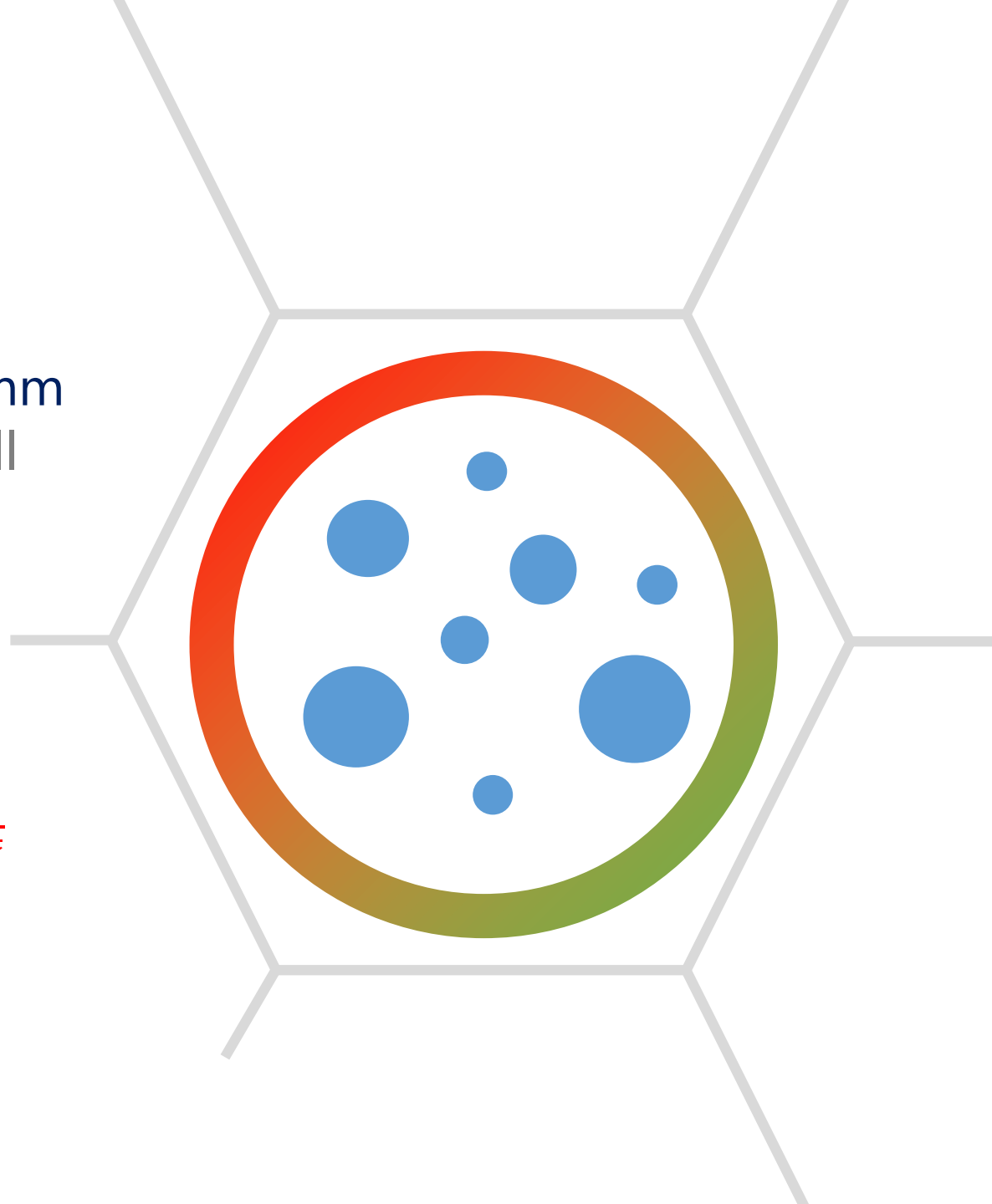
Tested according EU norms which means completely blowing agent free material.

λ convection

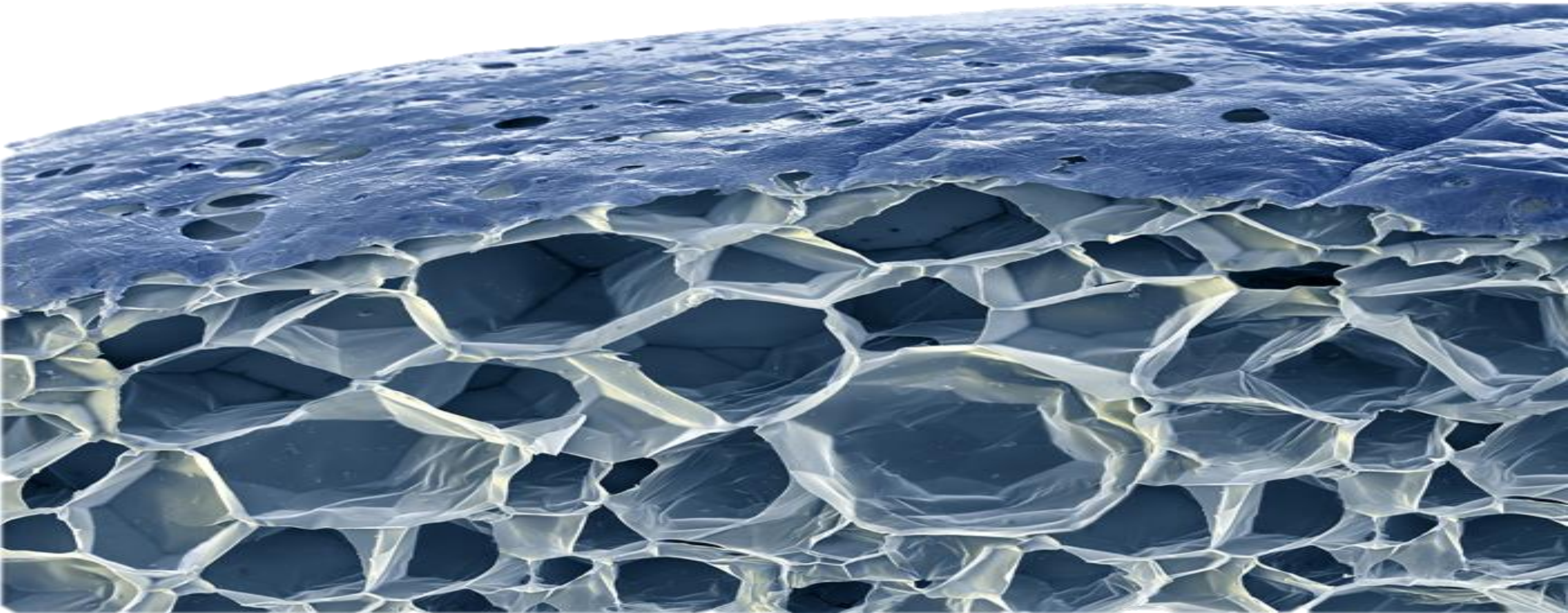
1. Convection is negligible with cells < 4mm
   Temperature difference between cell walls is minimal so convection can be neglected.

Cell size indication TSPRO: 0,4 mm

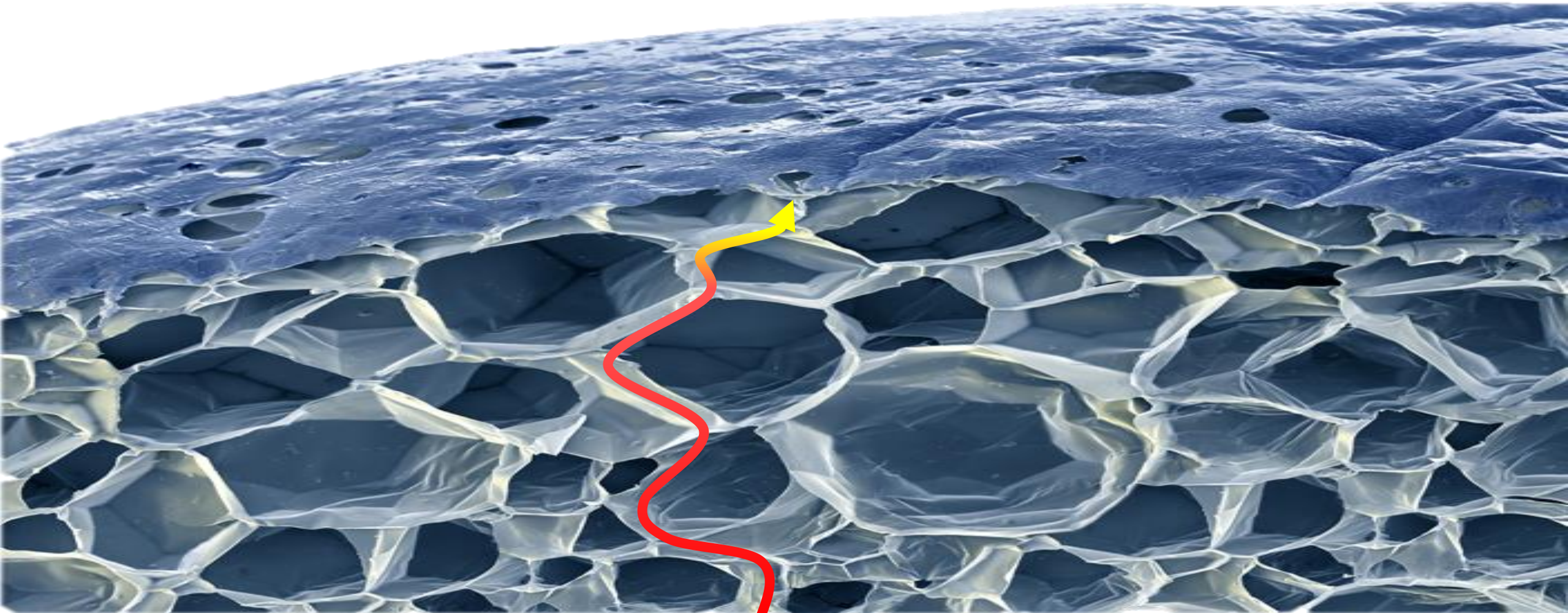
$$\lambda_{totaal} = \lambda_{gas} + \lambda_{solid} + \lambda_{rad} + \cancel{\lambda_{convection}}$$



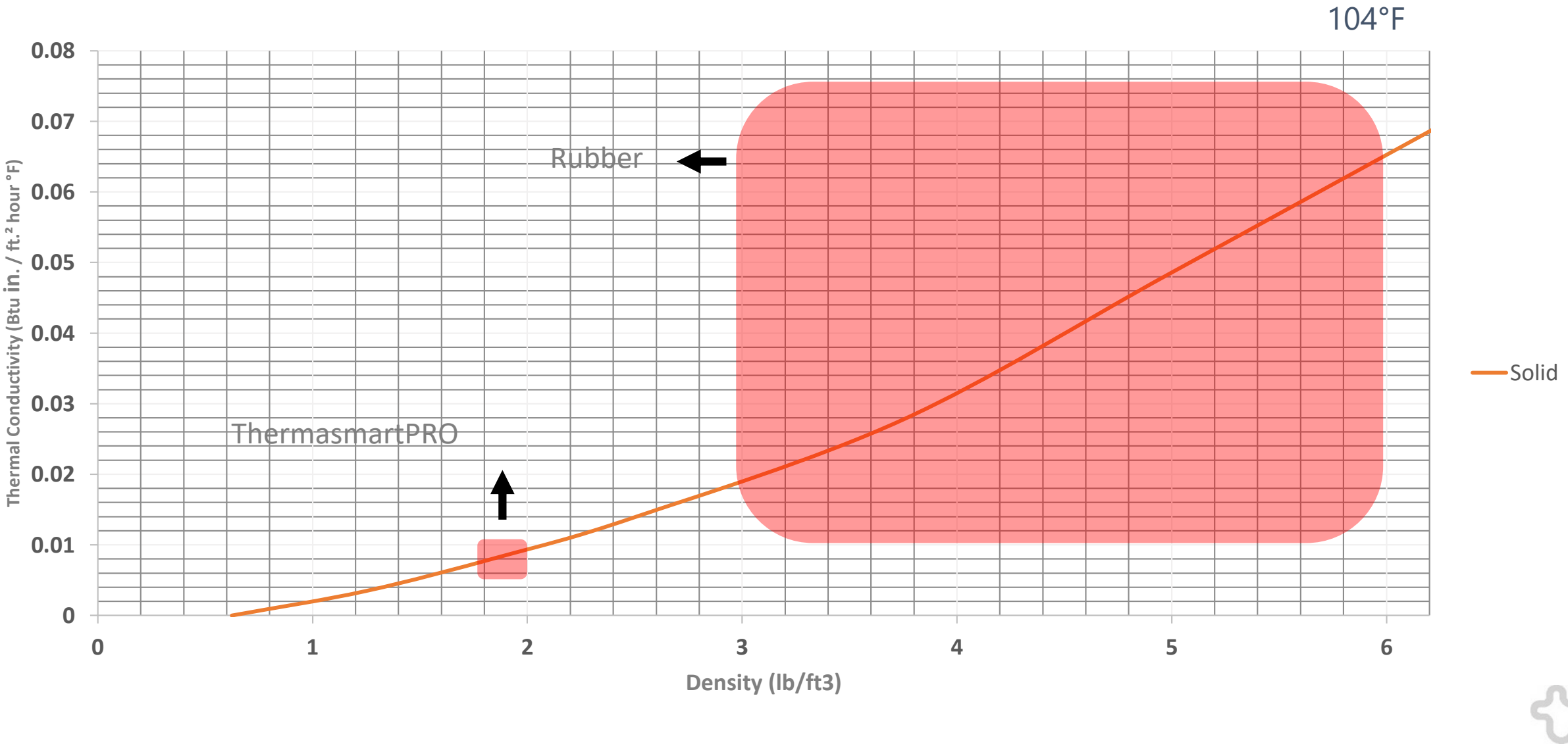
λ *solid*



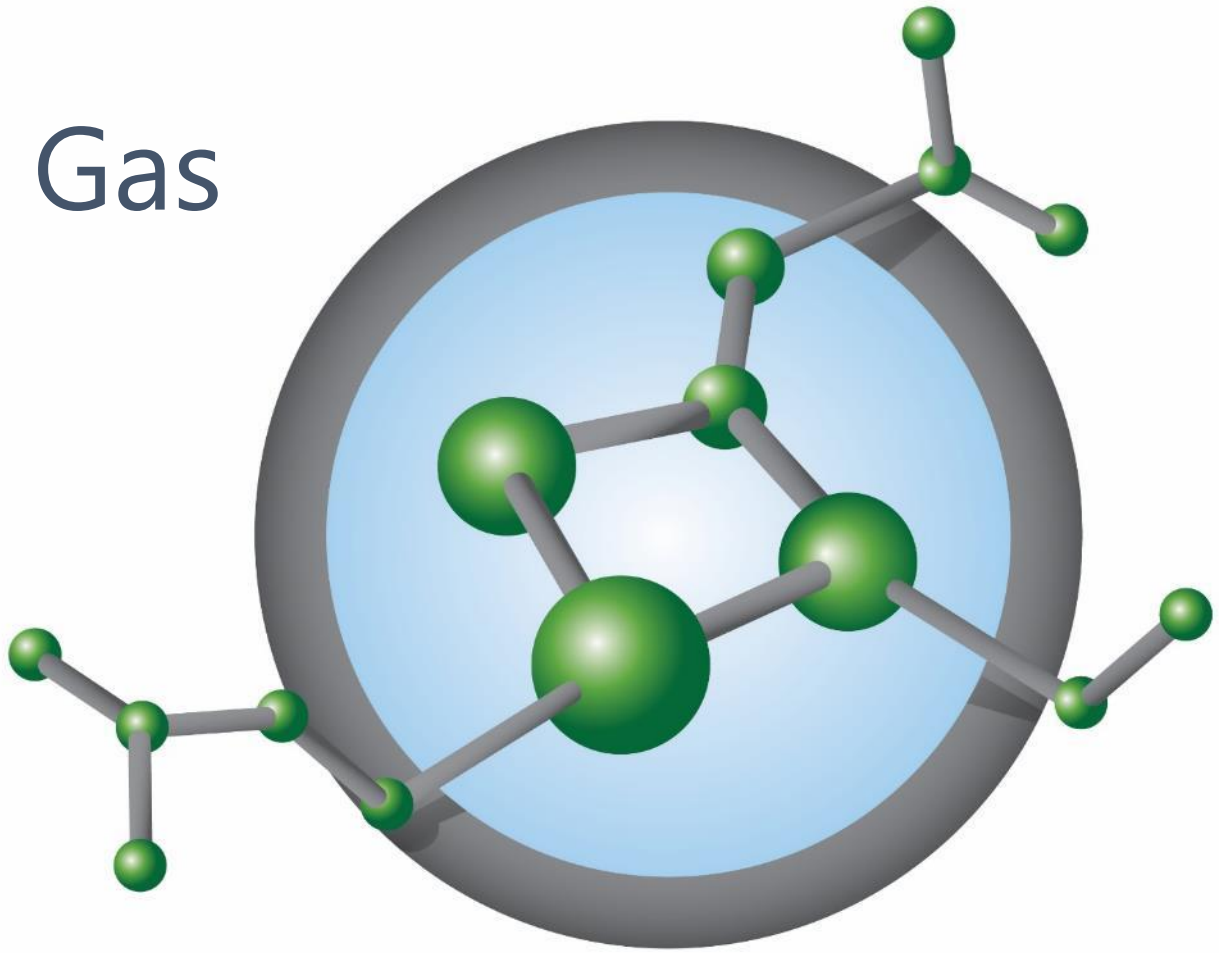
Thermal Conduction through cell walls



Less Material = Less Thermal Conductivity

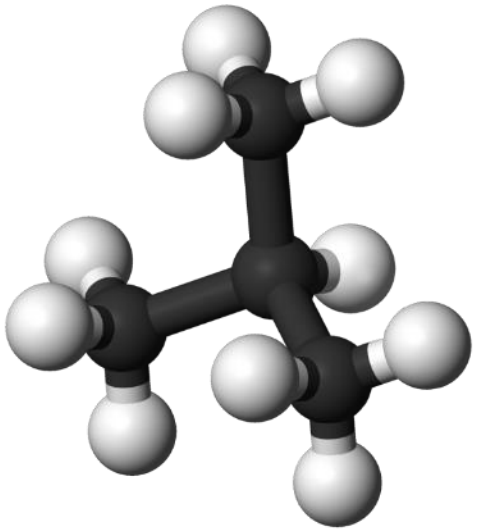


λ Gas



Influence Gas on Thermal Conductivity

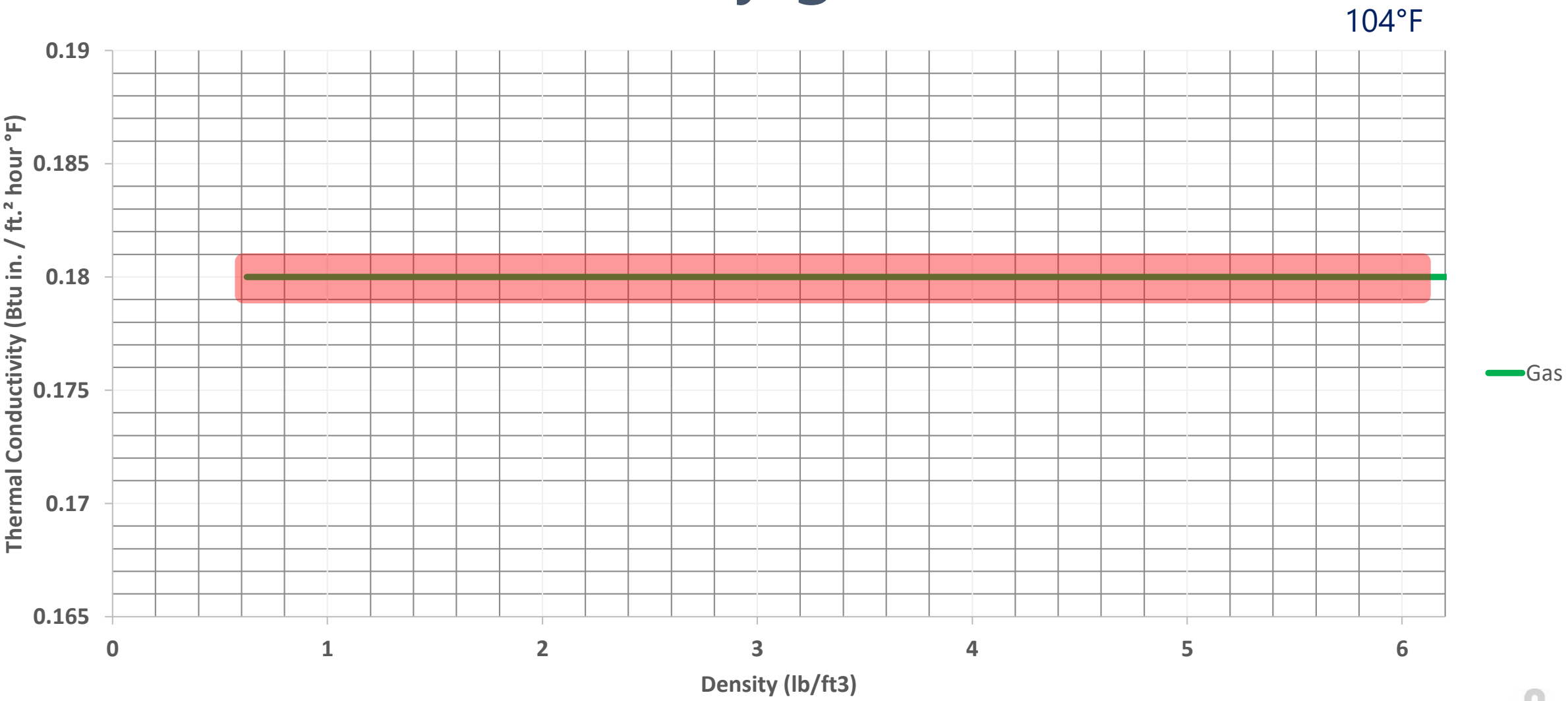
Gas	Thermal Conductivity [mW/(m·K)] (27°C)	Molar weight (g/mol)
Air	**26,2**	29
Oxygen (O2)	26,3	16
Nitrogen (N2)	26,0	28
Argon (Ar)	17,9	40
Carbon dioxide(CO2)	16,8	44
Iso-butane (CH3)2CH-CH3	16,4	58
Pentane (C5H12)	14,4	72
R-11 (CFCl3)	7,5	137



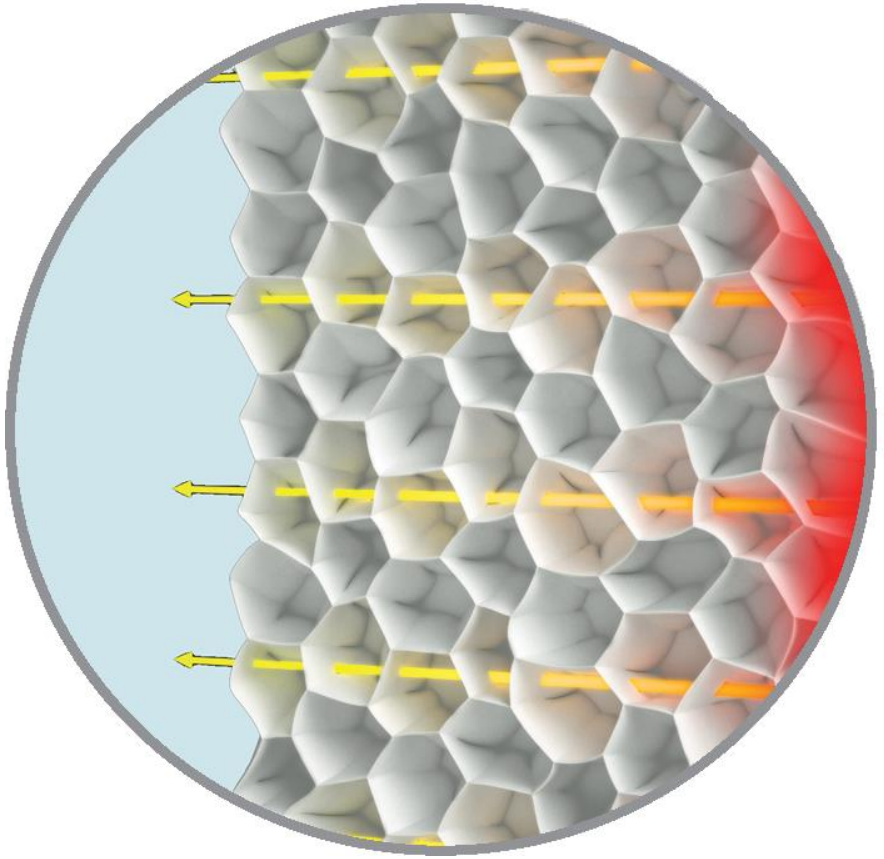
$$\lambda_{totaal} = \boldsymbol{\lambda_{gas}} + \lambda_{solid} + \lambda_{rad}$$

Tested according EU norms which means completely blowing agent free material.

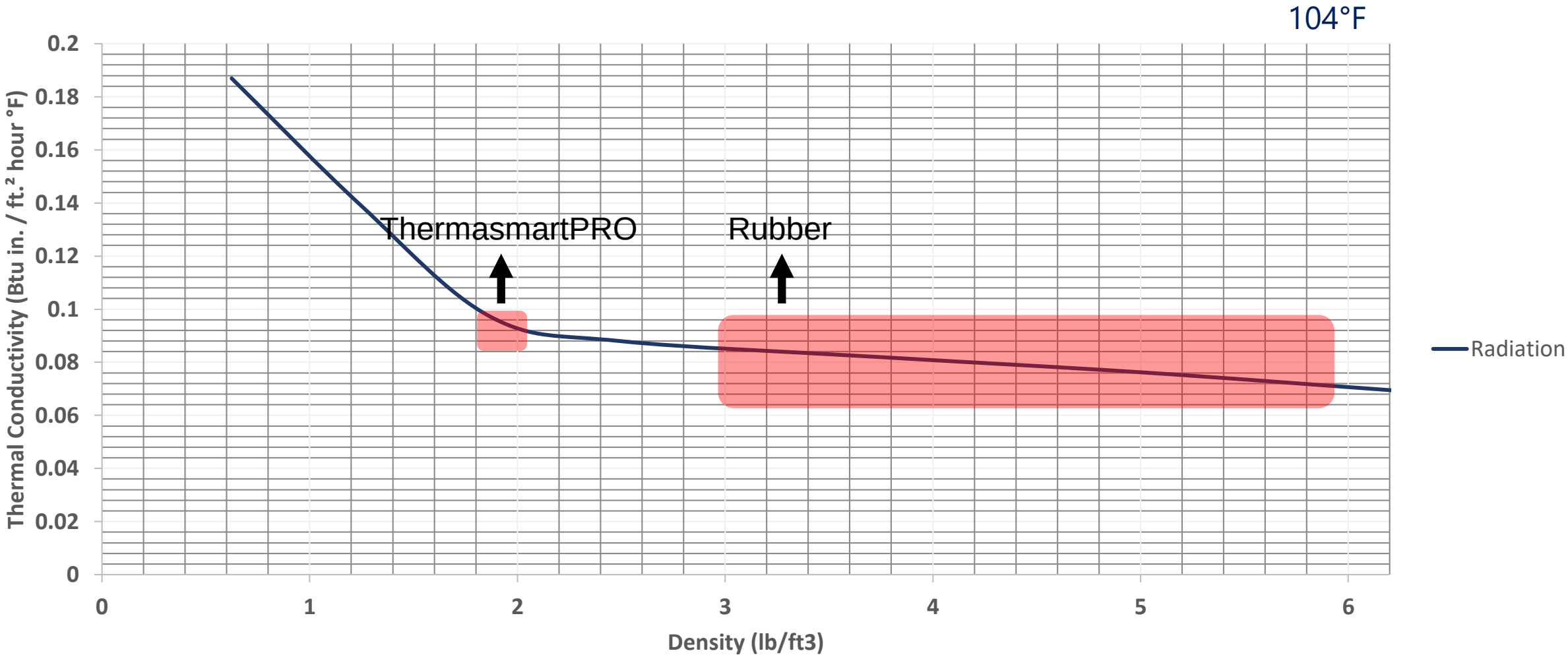
Thermal Conductivity gas



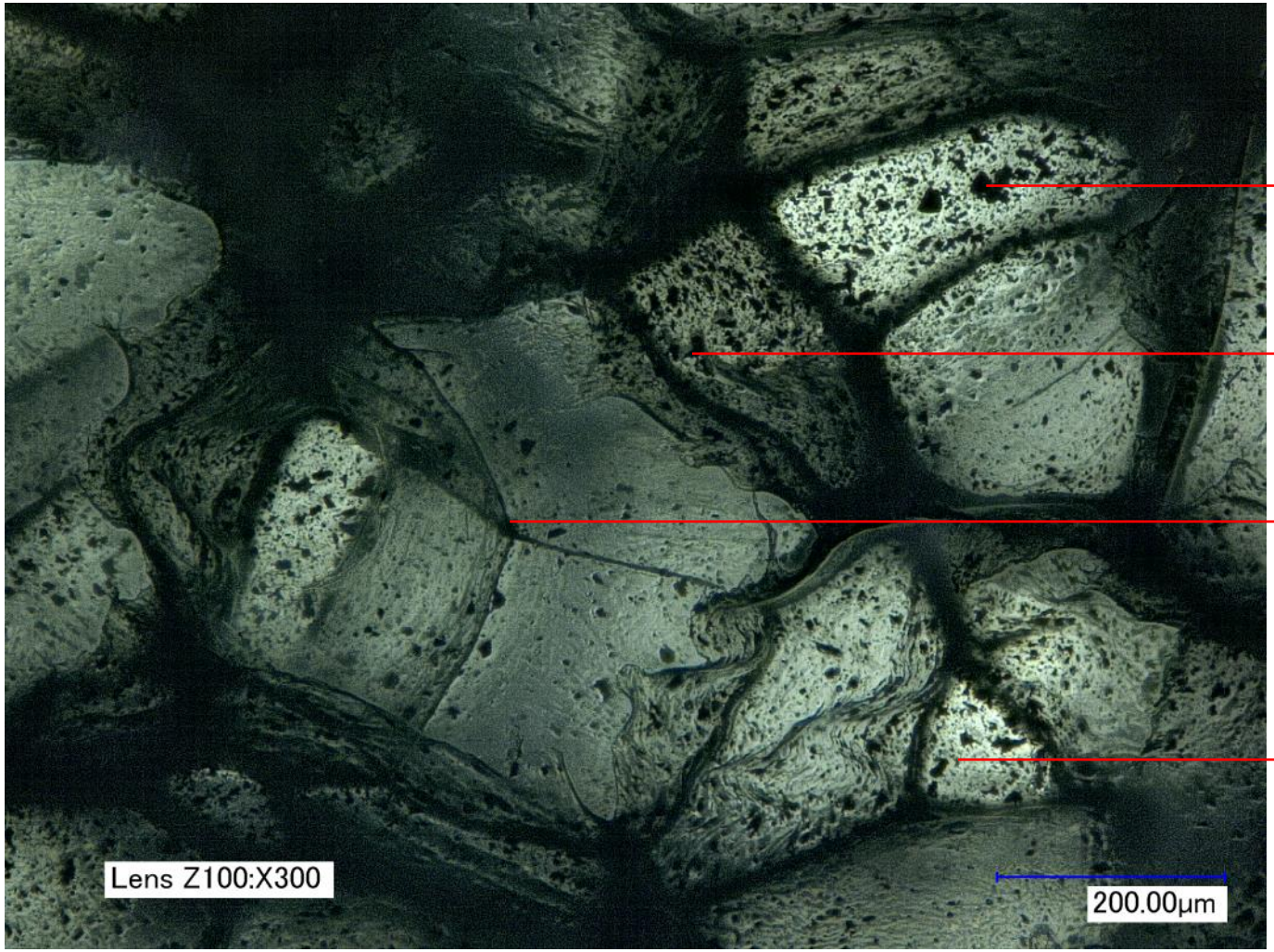
λ Rad



Radiation and Low Density



Reduce Thermal Conductivity by Reflection

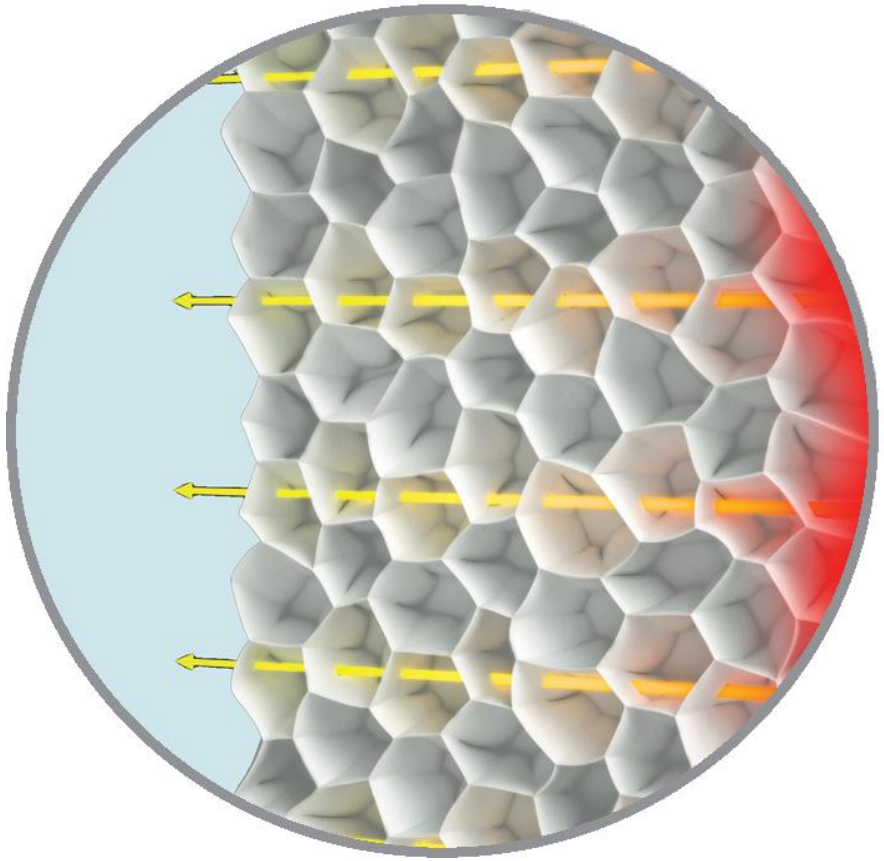


Reflective flakes

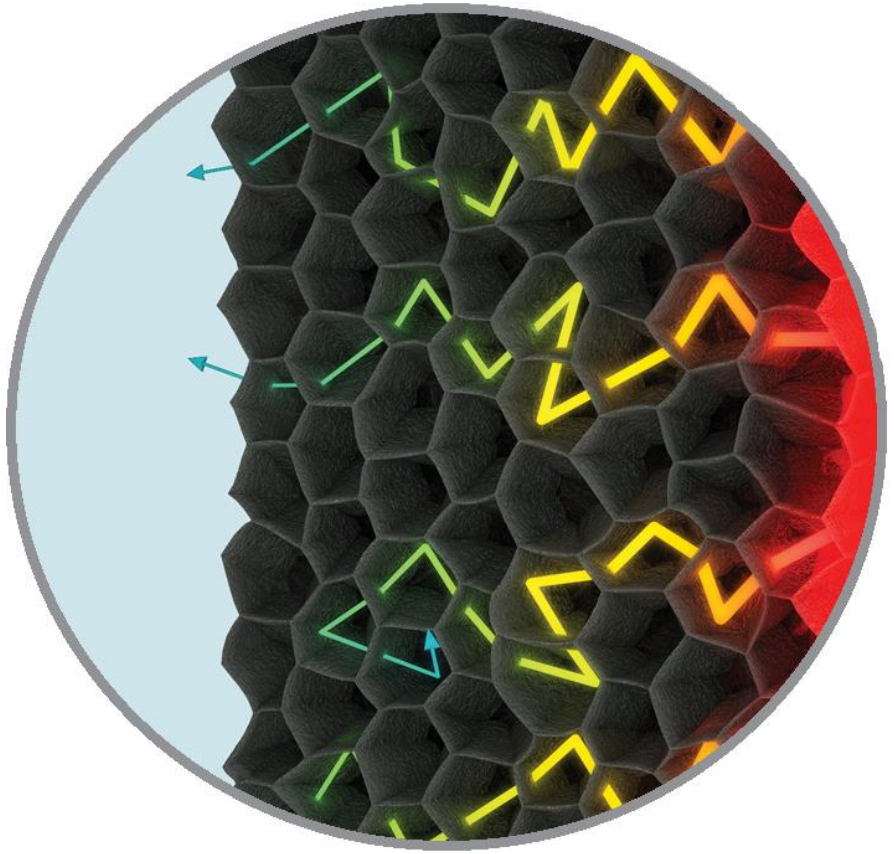
ThermasmartPRO Cell walls

Reflection of Thermal Radiation

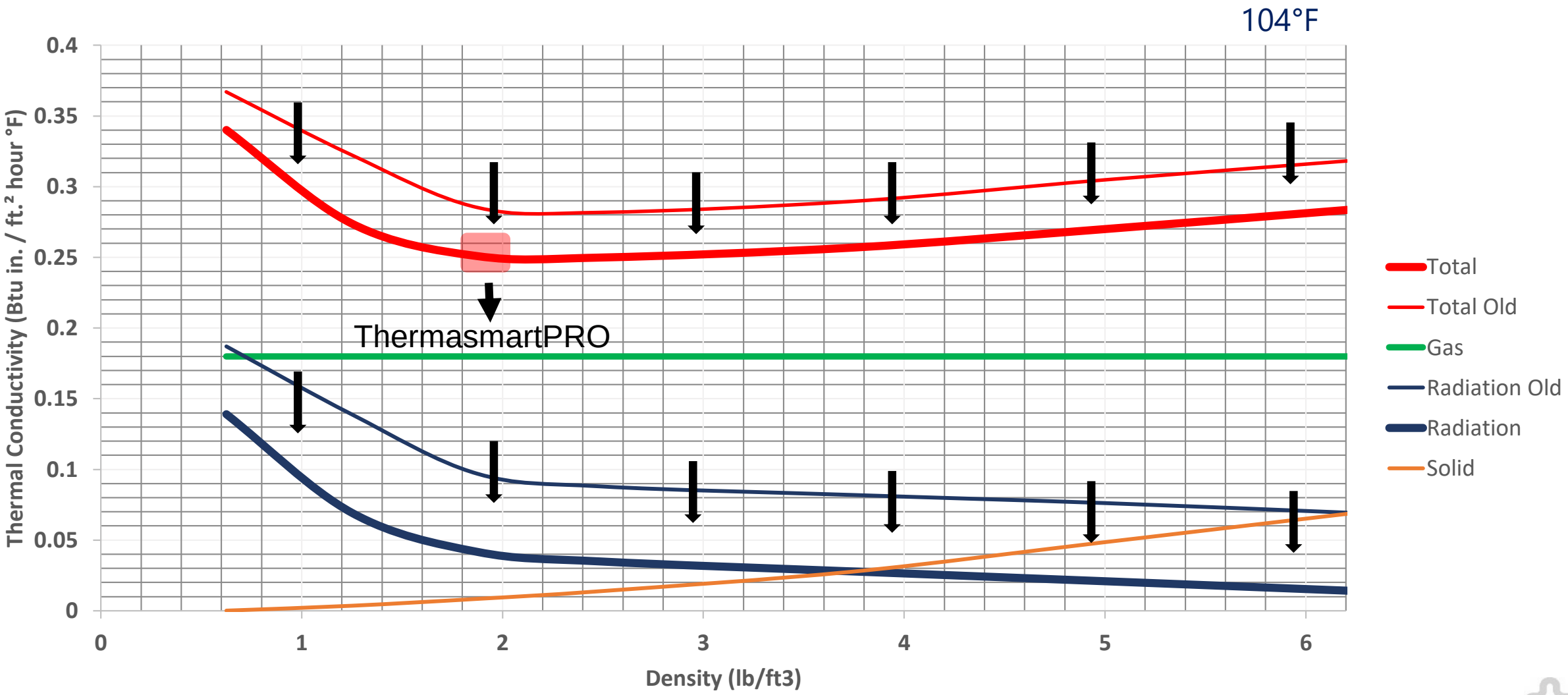
No reflection in cells



Reflection by the Flakes



Influence Reflective Additives on Thermal Conductivity



Technical

Insulation value

Vapour and a-polar

Condensation

Fire safety

Environment

Material

Stress crack

UV

Mechanical

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Insulator

Water vapour and a-polarity

Influenced by:

Polymer and additives (polarity)
- ThermasmartPRO: A-Polar
- Rubber (NBR): Polar
- Water Polar

Skin structure
Density of material
Temperature
Availability of water in **gas** phase (!)
Type of adhesive and preparation of the tube

Important for:

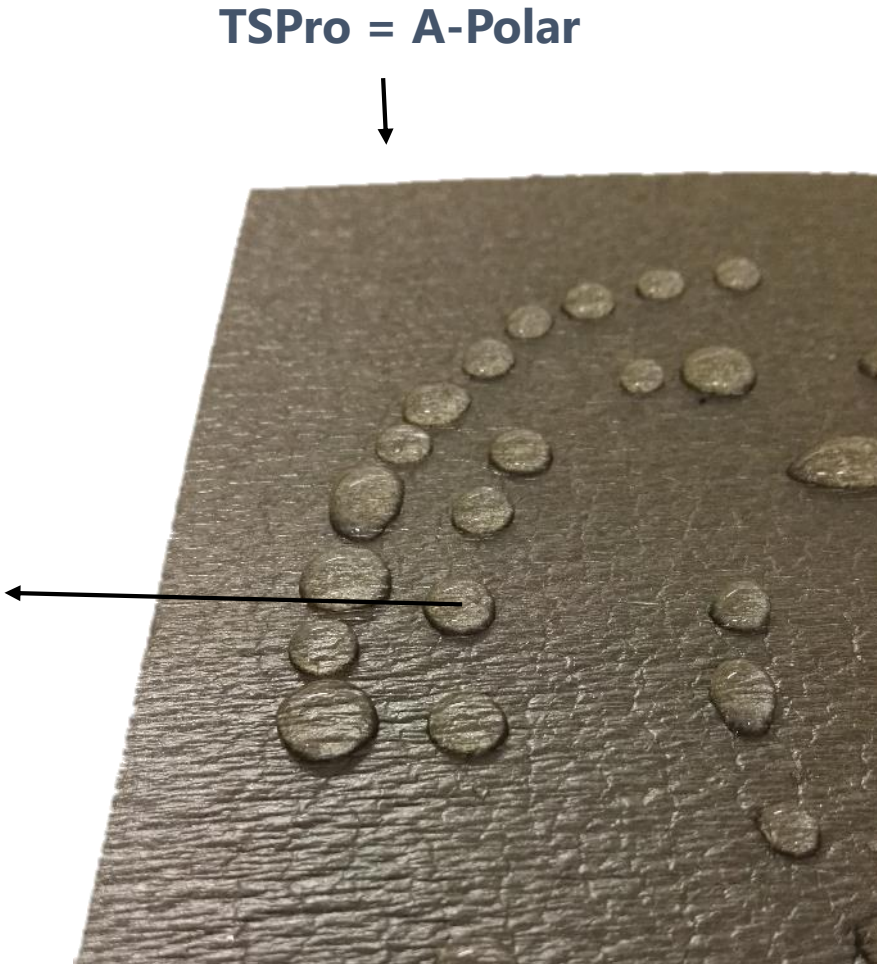
Energy saving
Long term behavior of material
Condensation on pipes
Corrosion

Value:

ThermaSmartPRO:

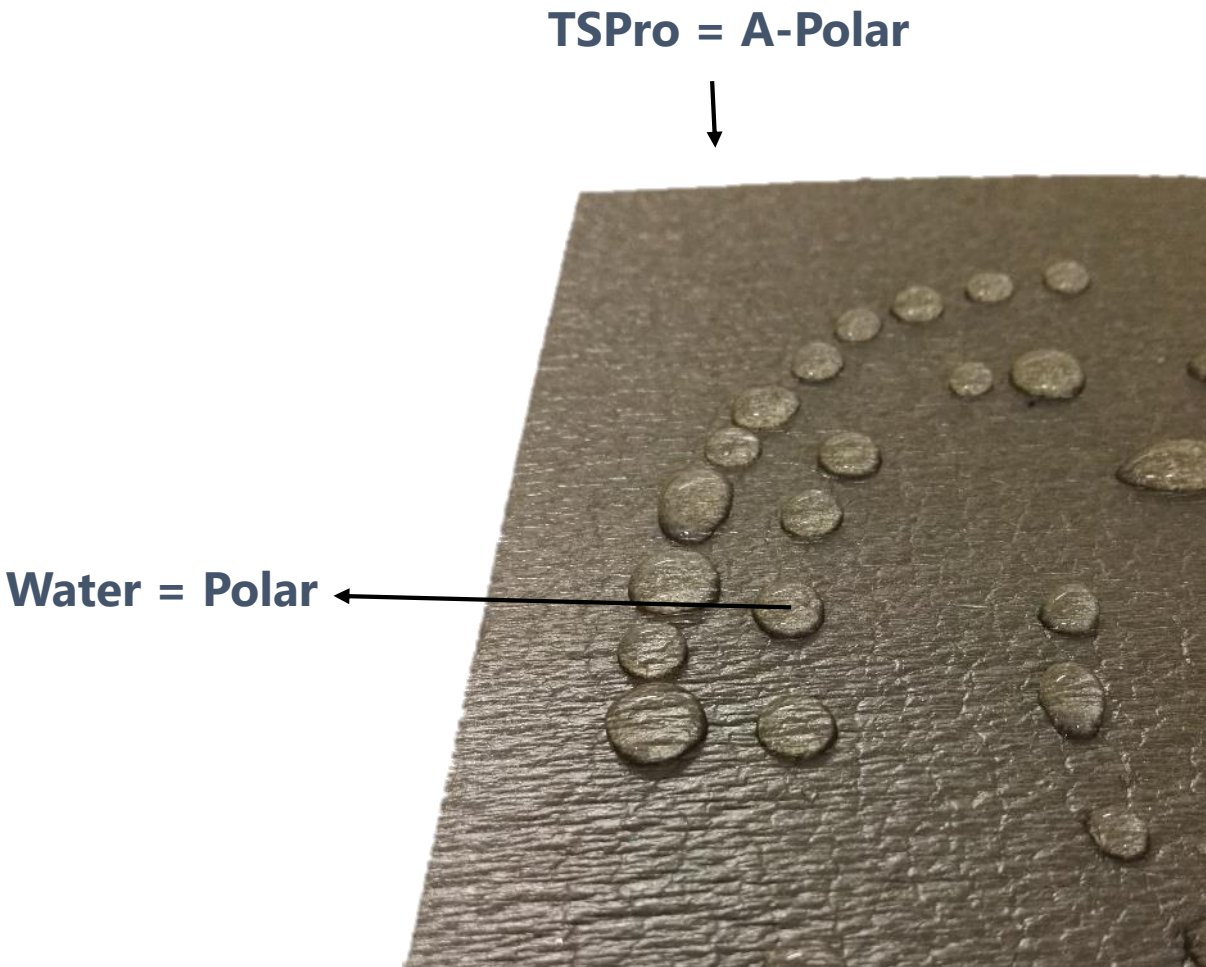
Tube: 10.000 µ
Sheet: 5300 µ
Rubber: >7.000 µ (when not damaged)

Same recipe, different test method

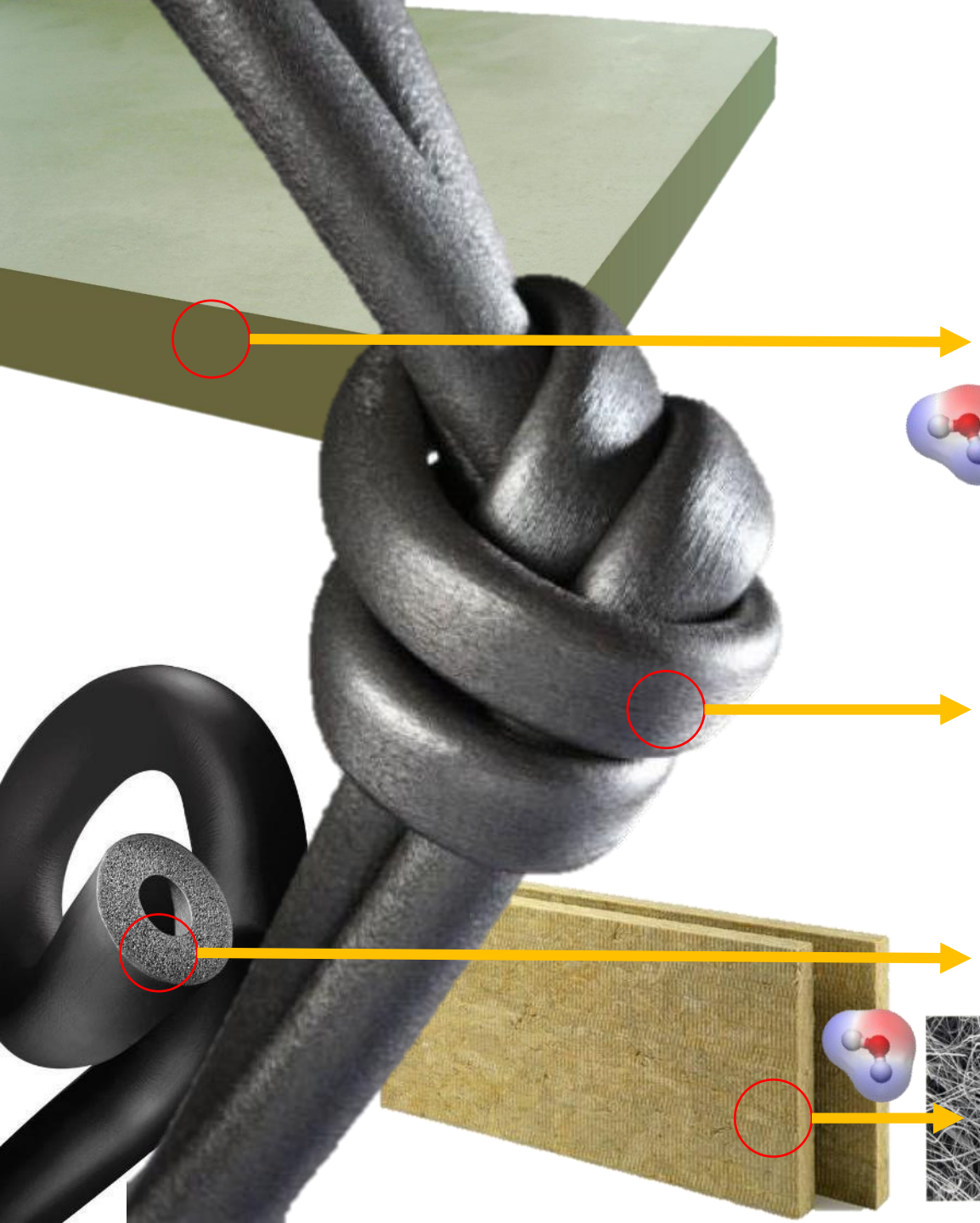


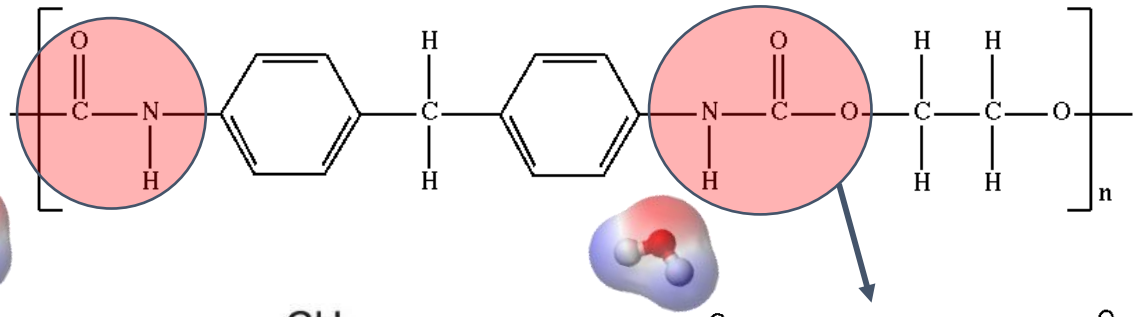
Water vapour and a-polarity

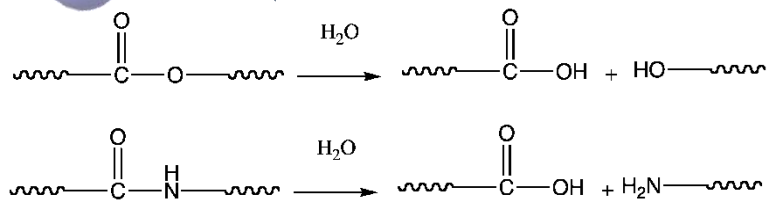
Isolatiewaarde over tijd sterk beinvloed door mu-waarde

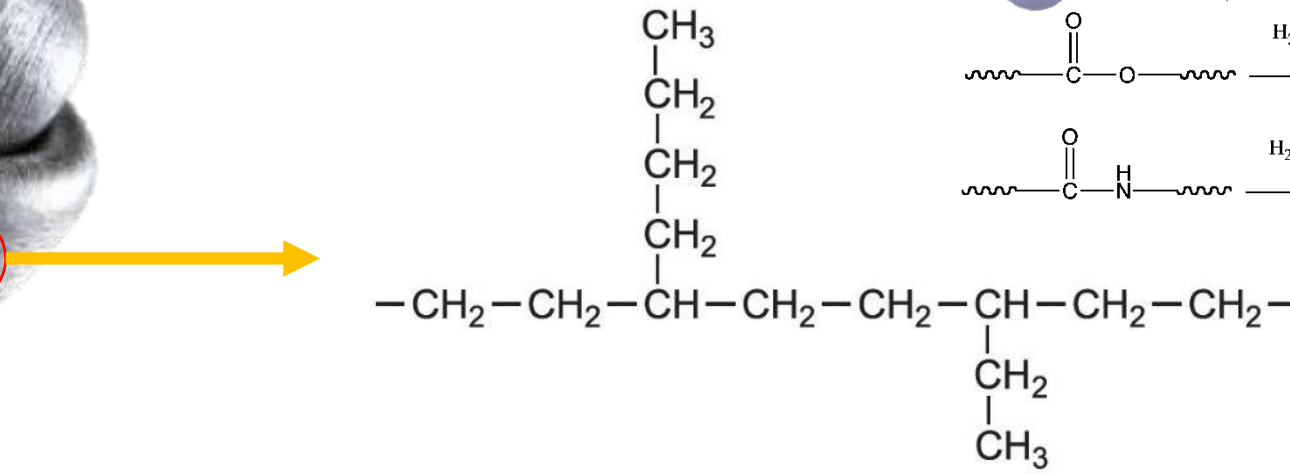


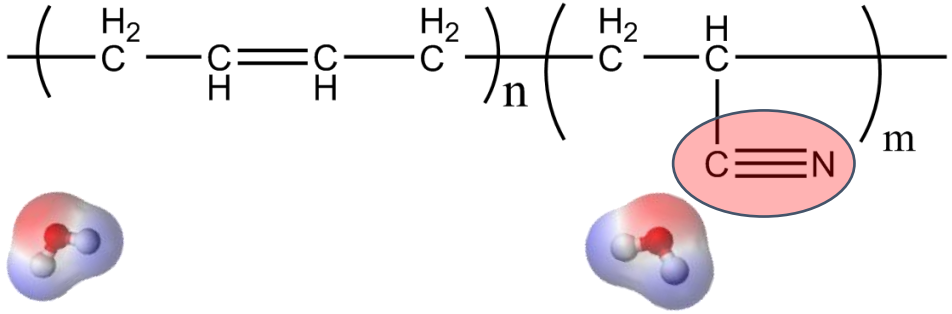
Polarity Insulation Polymers







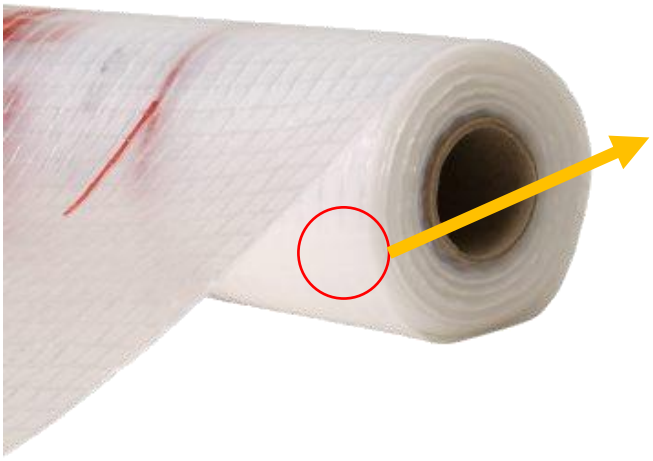




Resistance to water vapour diffusion

μ

It indicates how many times greater the resistance to water vapour transmission of a layer of insulation material is compared to a static layer of air of the same thickness.

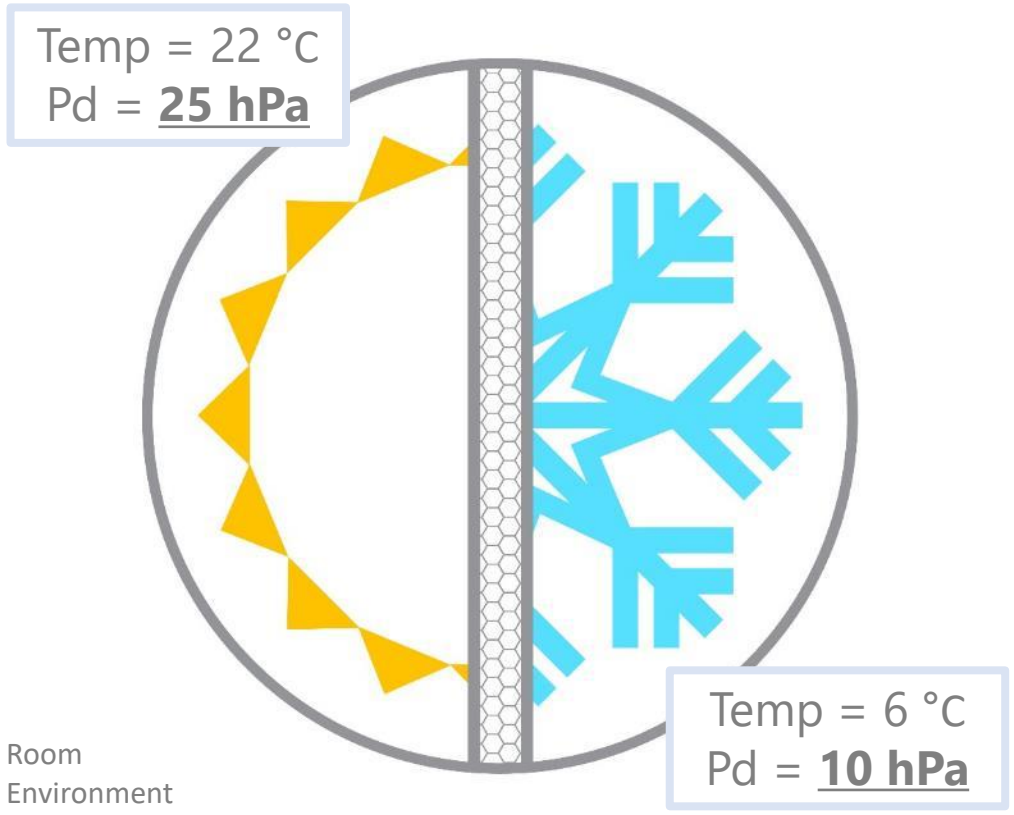


The chemical structure of a polymer mainly determines the actual permeability for water vapor as well as for other gases.

Vapor barrier foil = LDPE
ThermaSmartPRO = LDPE
(modified)

Polymer	Abbreviation	H_2O Permeability [Barrer]
Polyethylene	(PE)	12
Polyvinylalcohol	(PVA)	19
Polypropylene	(PP)	68
Polyamide 6 (Nylon 6)	(PA-6)	275
Polyvinylchloride	(PVC)	275
Polyacrylonitril	(PAN)	300
Polyimide (Kapton)	(PI)	640
Polystyrene	(PS)	970
Polycarbonate	(PC)	1,400
Polysulfone	(PSF)	2,000
Natural rubber	(NR)	2,600
Polyethersulfone	(PES)	2,620
Polyphenyleneoxide	(PPO)	4,060
Cellulose acetate	(CA)	6,000
Sulfonated polyethersulofon	(SPES)	15,000
Ethyl cellulose	(EC)	20,000
Polydimethylsiloxane	(PDMS)	40,000
Sulfonated polyetheretherketon	(SPEEK)	61,000

Water-Vapour Transmission



Vapour Pressure

- Depending on the temperature air can only absorb a certain, limited amount of water vapour.
- Depending on the temperature, the partial pressure of the water vapour can also only have a certain maximum value (saturated water vapour pressure Ps.)

Driving Force

- Different temperatures and humidities on the two sides of the insulation, result in a vapour pressure difference.
- Because pressures naturally tries to achieve a balance, the difference in pressure is the driving force behind water vapour transmission.

Water-Vapour Transmission

1

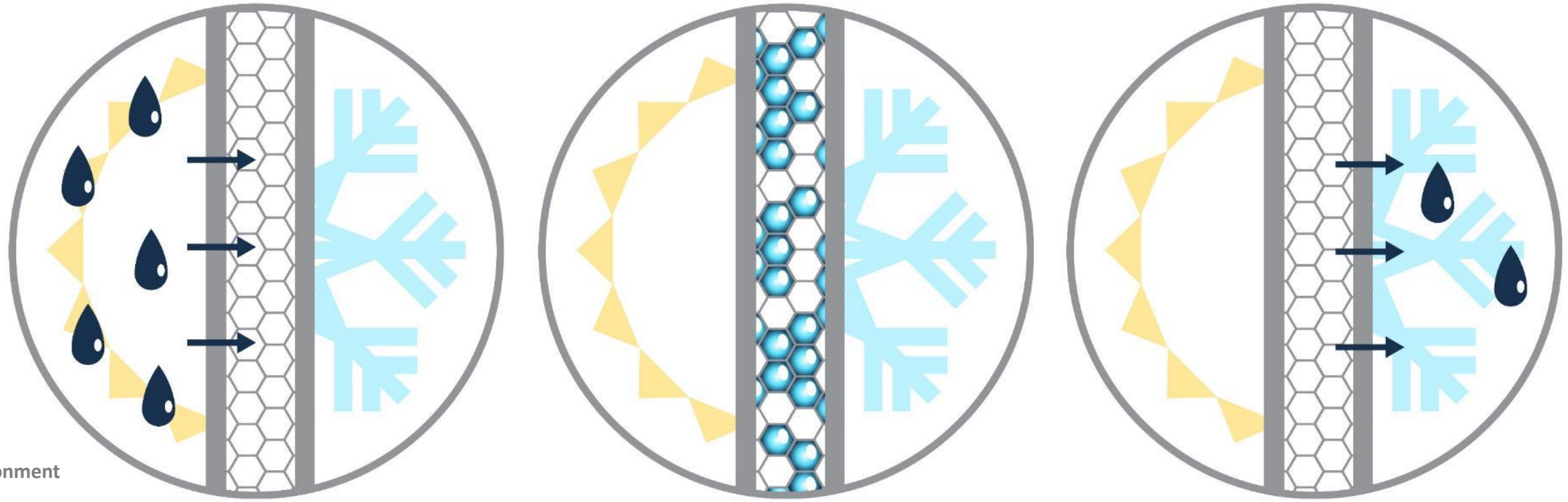
Vapour absorbs in polymer surface

2

Vapour diffuses through polymer

3

Vapour desorbs / outgasses on other side of polymer



Room Environment

Water-Vapour Transmission Cooling Application

1

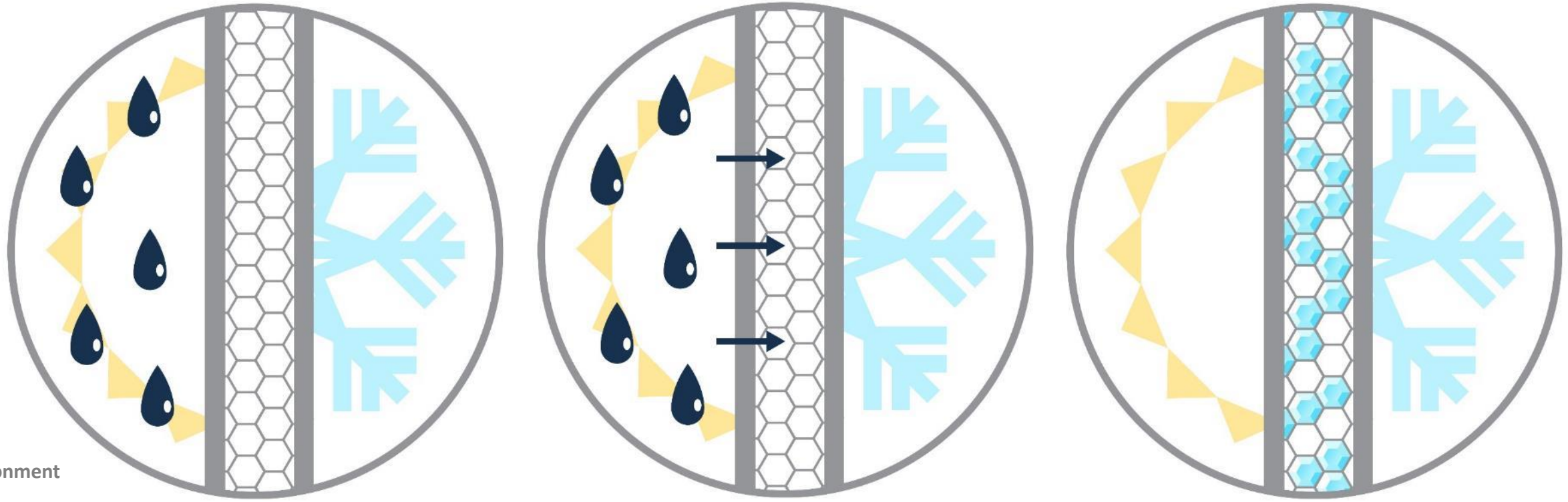
Vapour absorbs
in polymer surface

2

Vapour diffuses
through polymer

3

Vapour turns
into water / ice



Room
Environment

Water Absorption

Influenced by:

Polymer and additives (polarity)

Cell structure (*for ThermasmartPRO the properties do not depend on a surface skin in contrast to most rubber products)*

Important for:

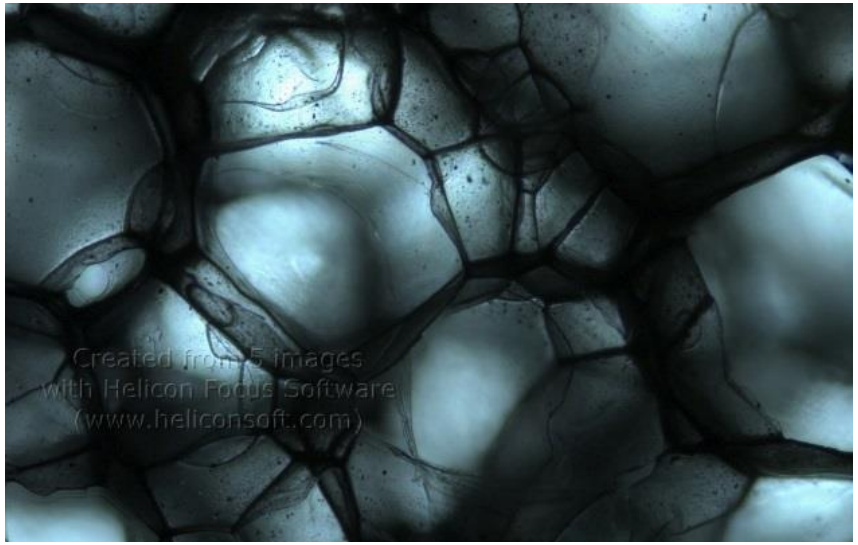
Energy saving

Long term behavior of material

Value:

ThermaSmartPRO: < 0,05 kg/m^3

Closed Cell Structure ThermasmartPRO



Technical

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Condensation

Fire safety

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Stress crack

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Insulator

Condensation

Influenced by:

Thermal conductivity insulation
Medium Temperature
Ambient Temperature
Relative humidity
Air ventilation

What happens:

Because of condensation →
Energy loss
Damage to buildings and furniture
Humidity smell

Important for:

Energy saving

Damage to Surrounding

Value:

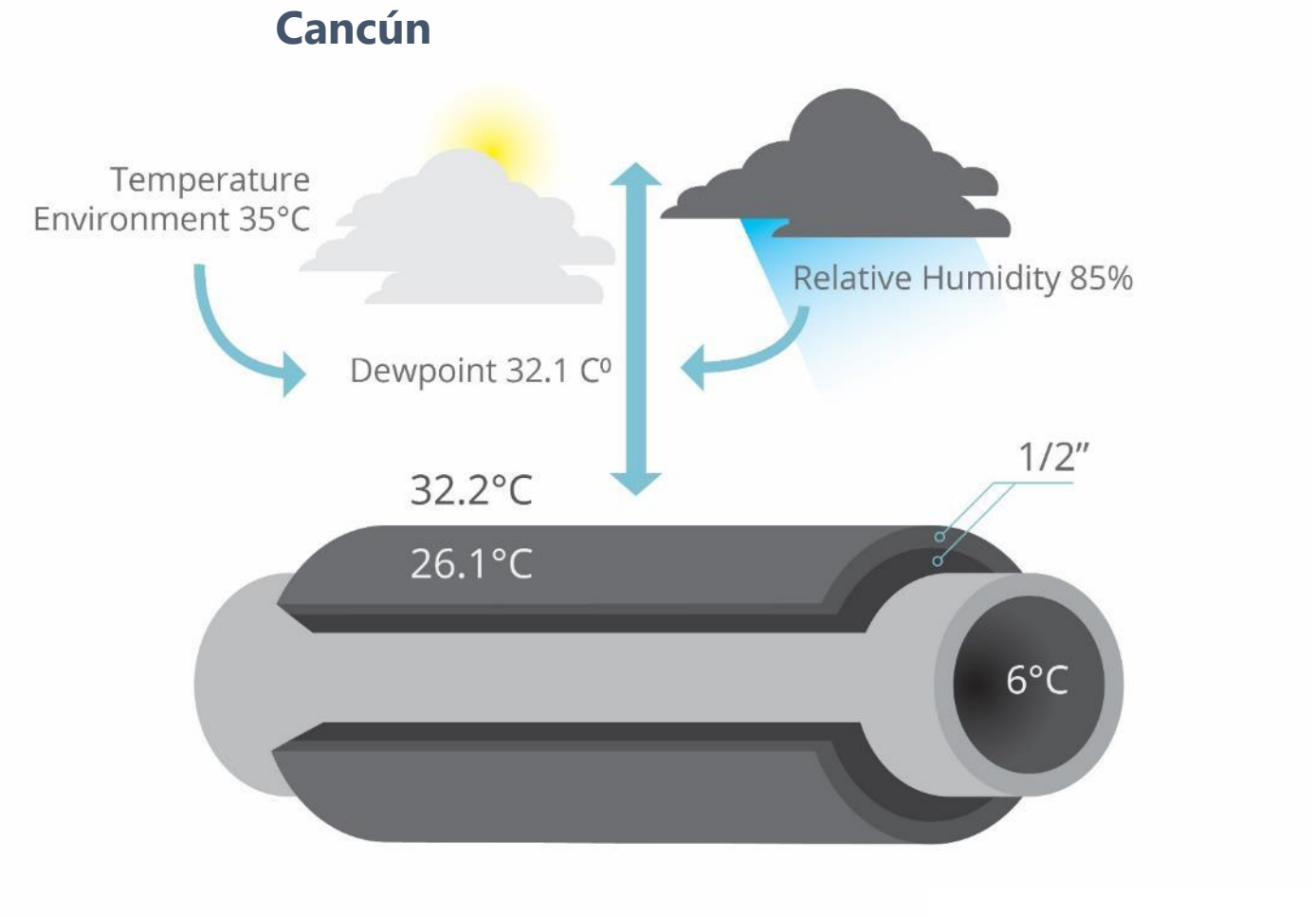
ThermaSmartPRO 0°C = 0,0341 W/mK
Calulation software

Condensation

To prevent condensation the surface temperature on the insulation should always be at least as high as, or preferably higher than, the dew point temperature of the ambient air.

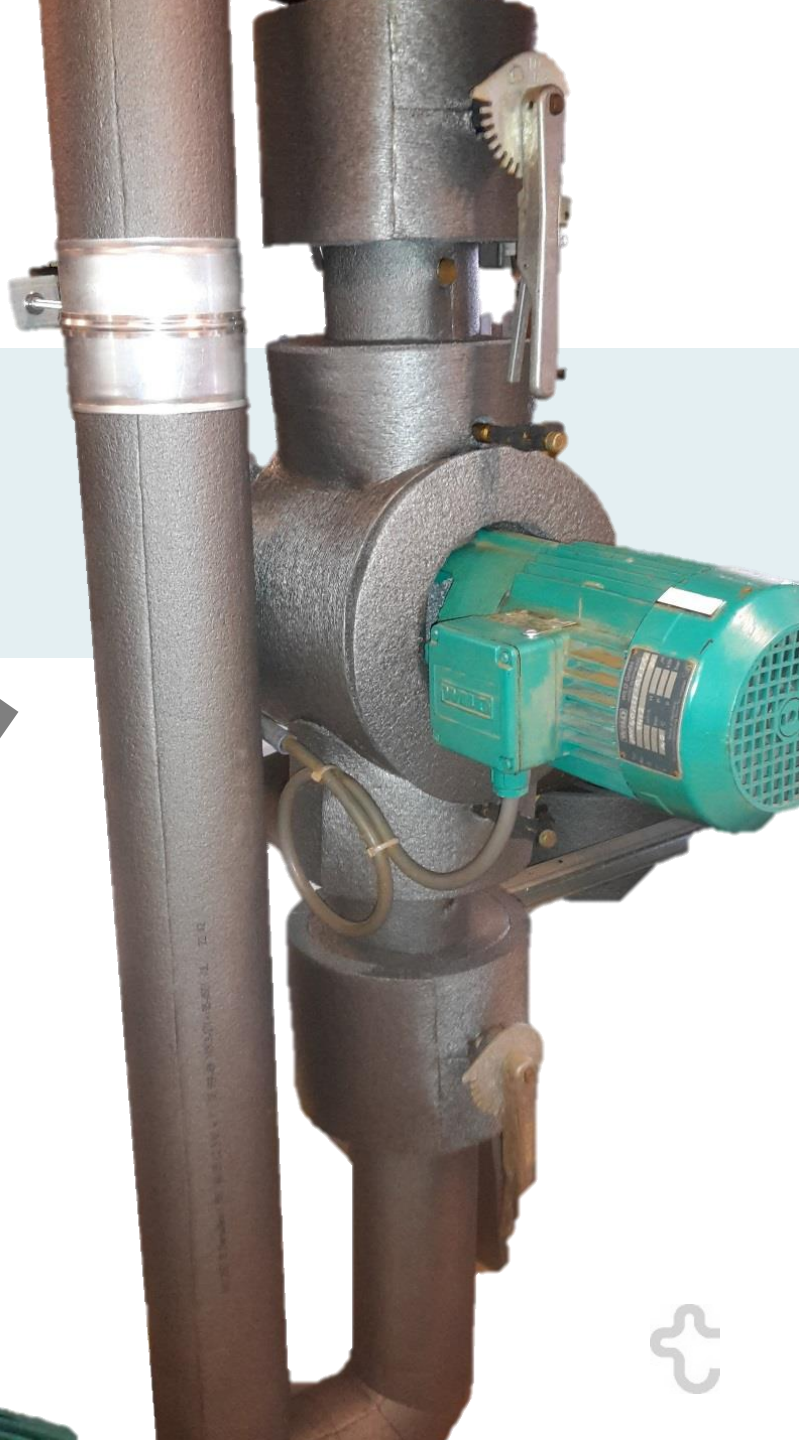
ThermaSmartPRO
0°C = 0,0341 W/mK

Air Temperature
Relative Humidity
Dew Point



Condensation &
Water-Vapour Transmission

Condensation on pipes will give corrosion problems and high maintaince cost.



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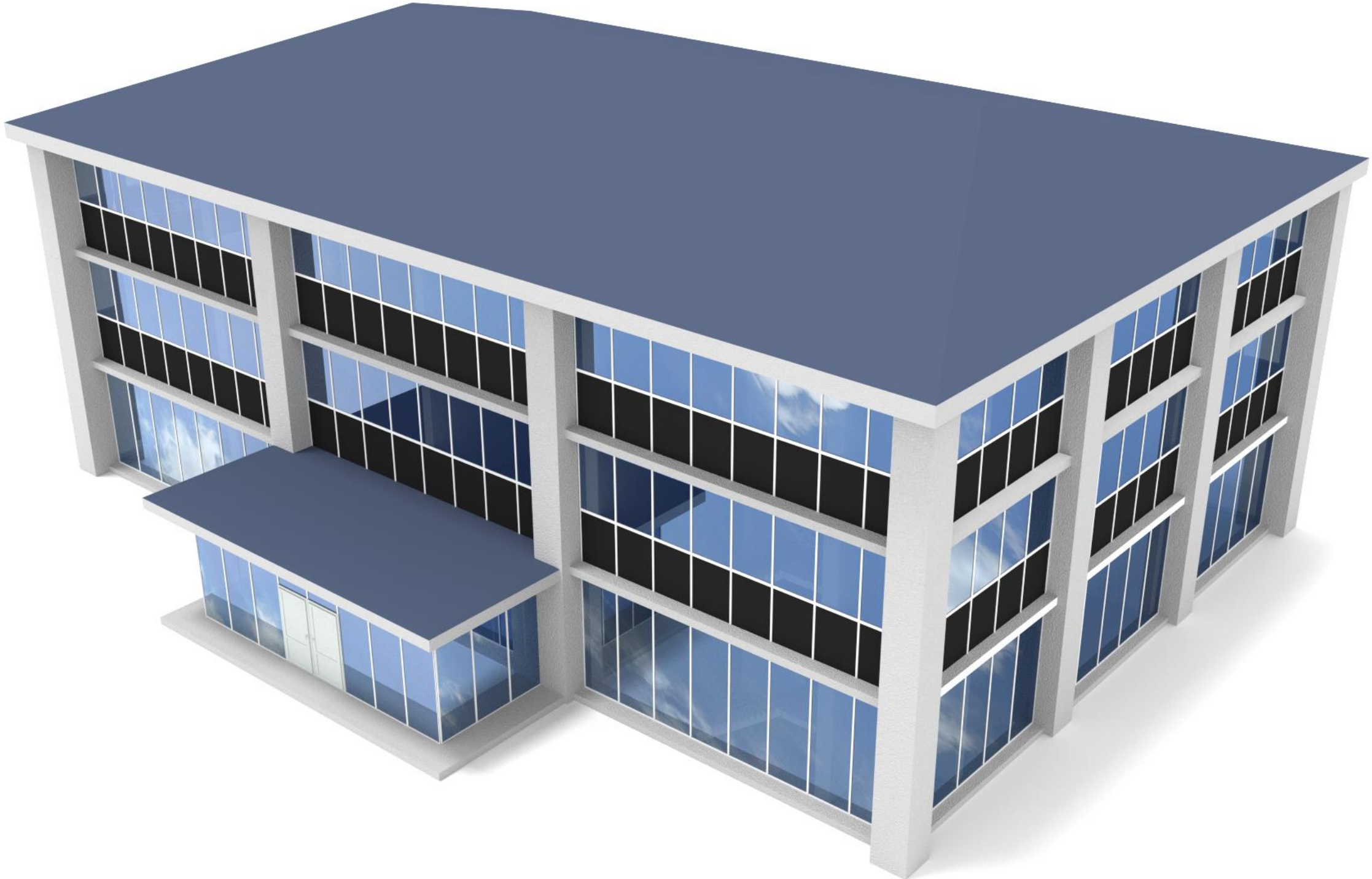

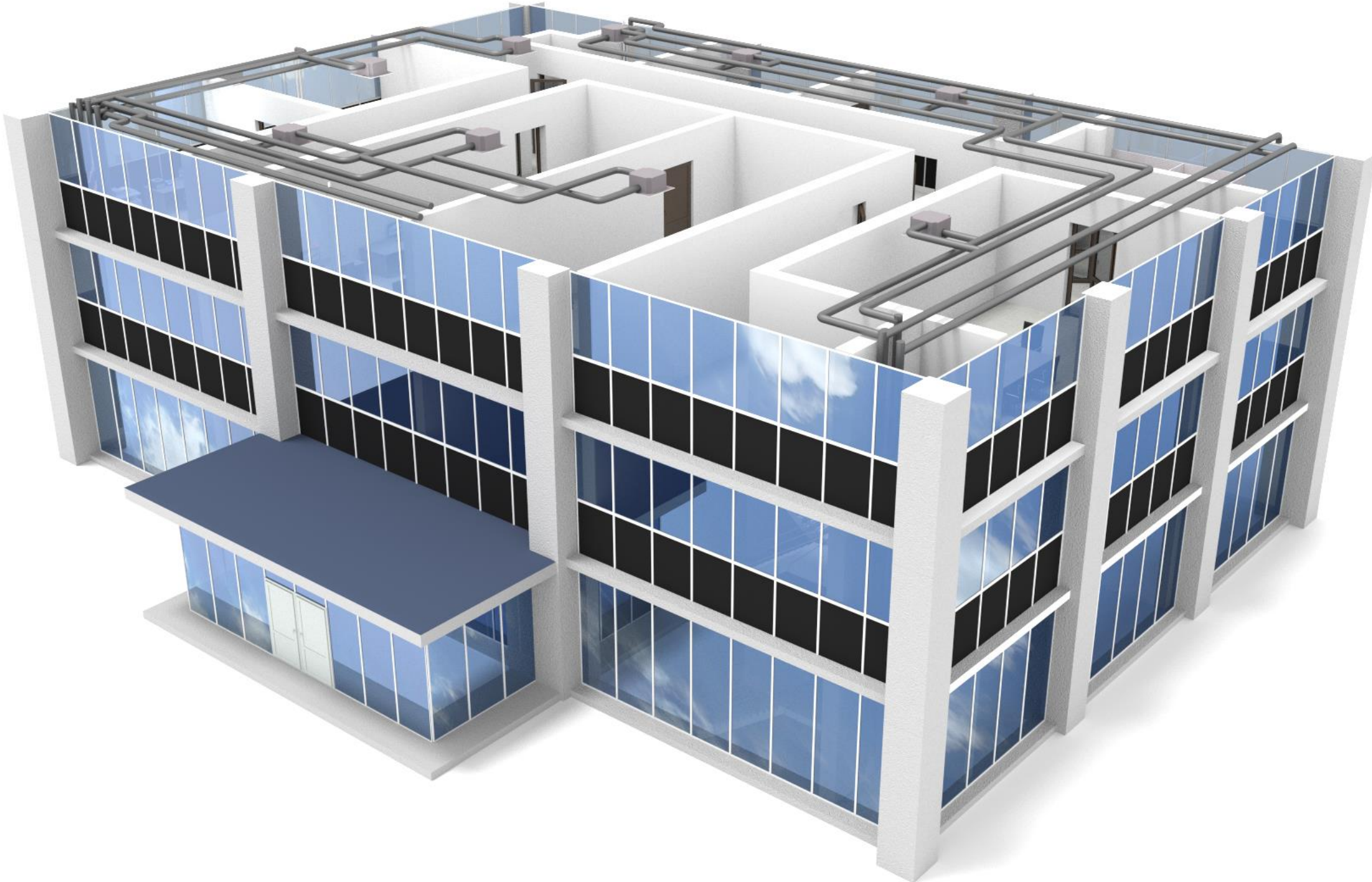

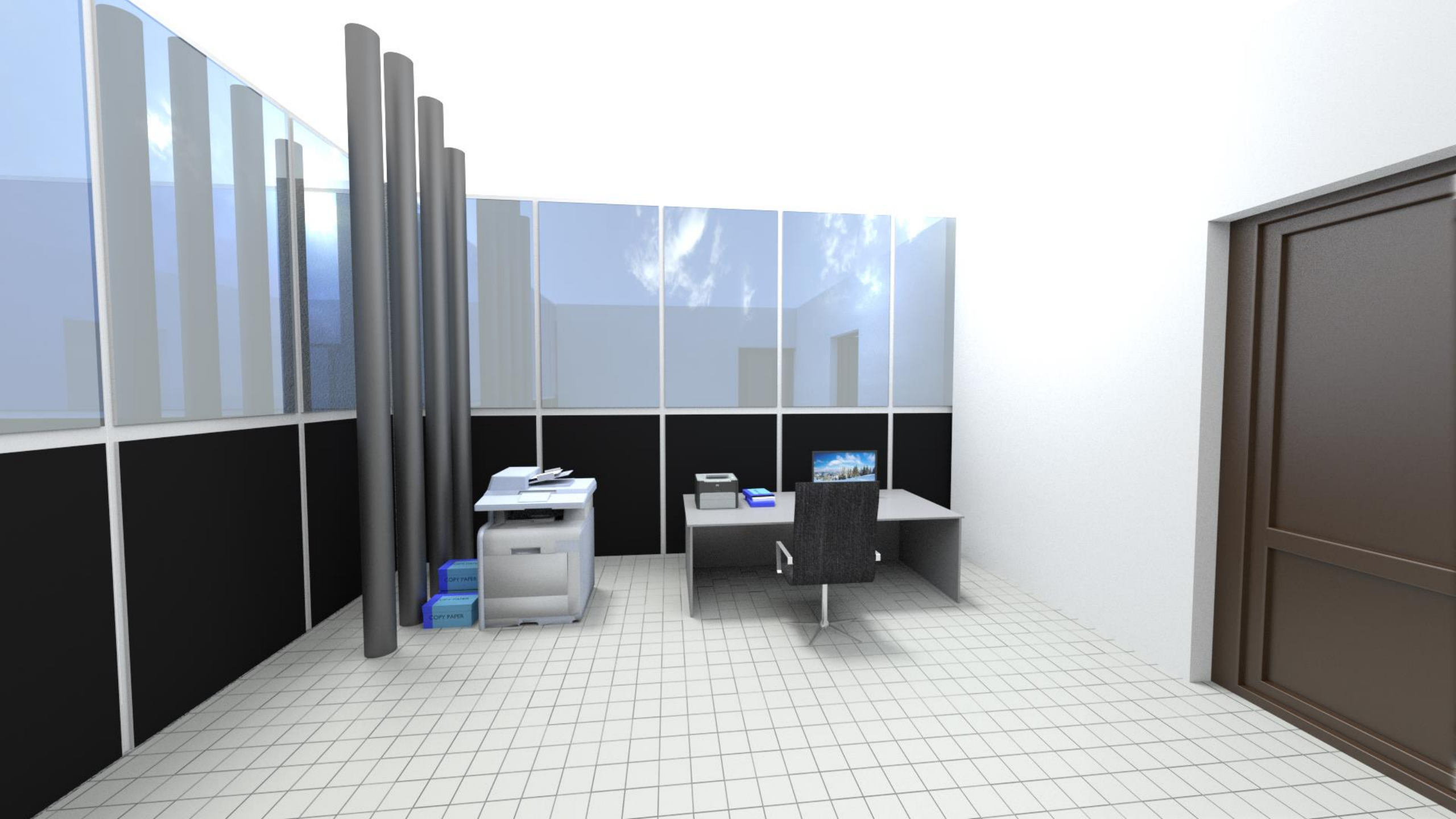
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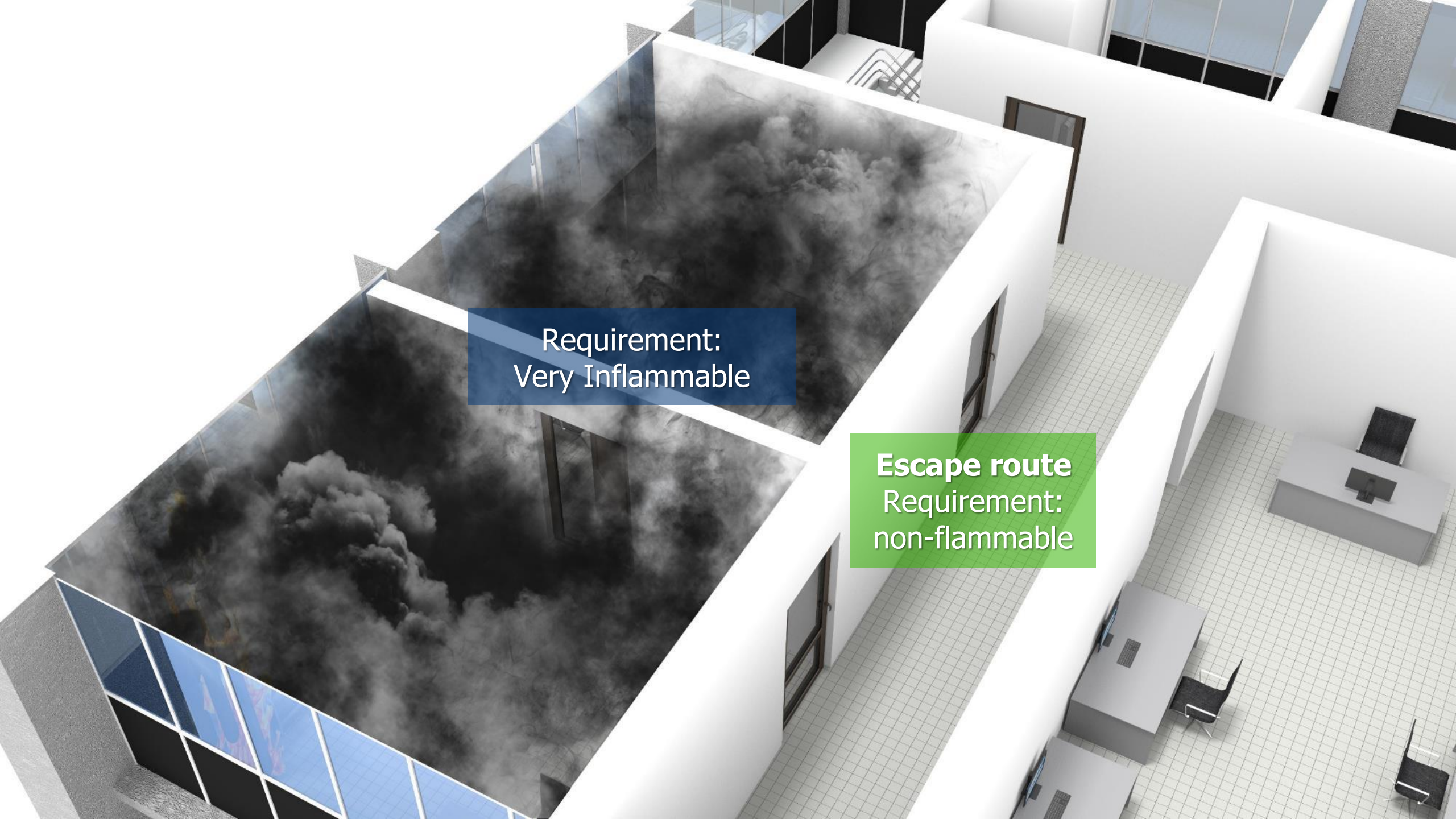
Requirement:
Very Inflammable
Escape route
Requirement:
non-flammable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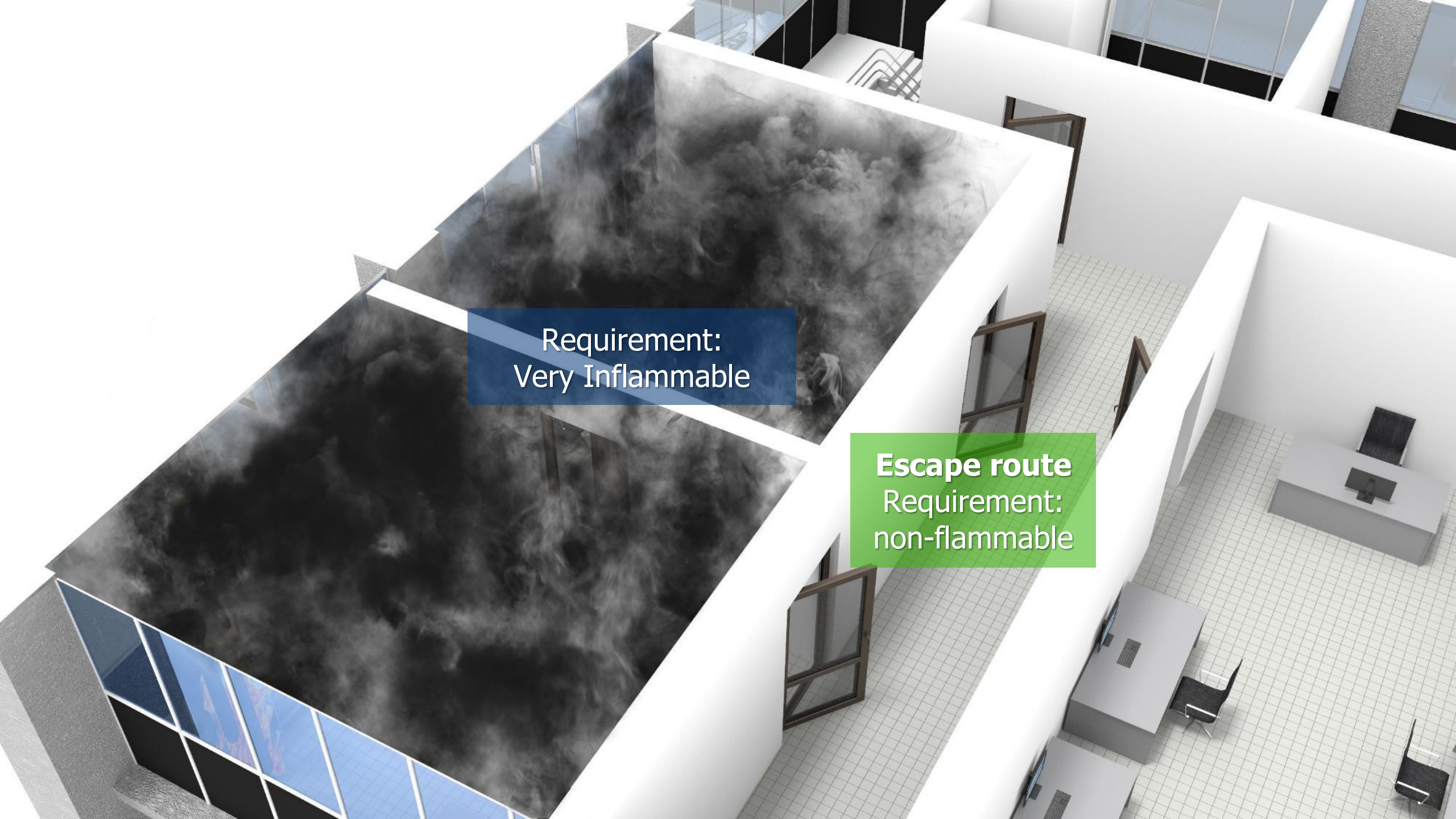
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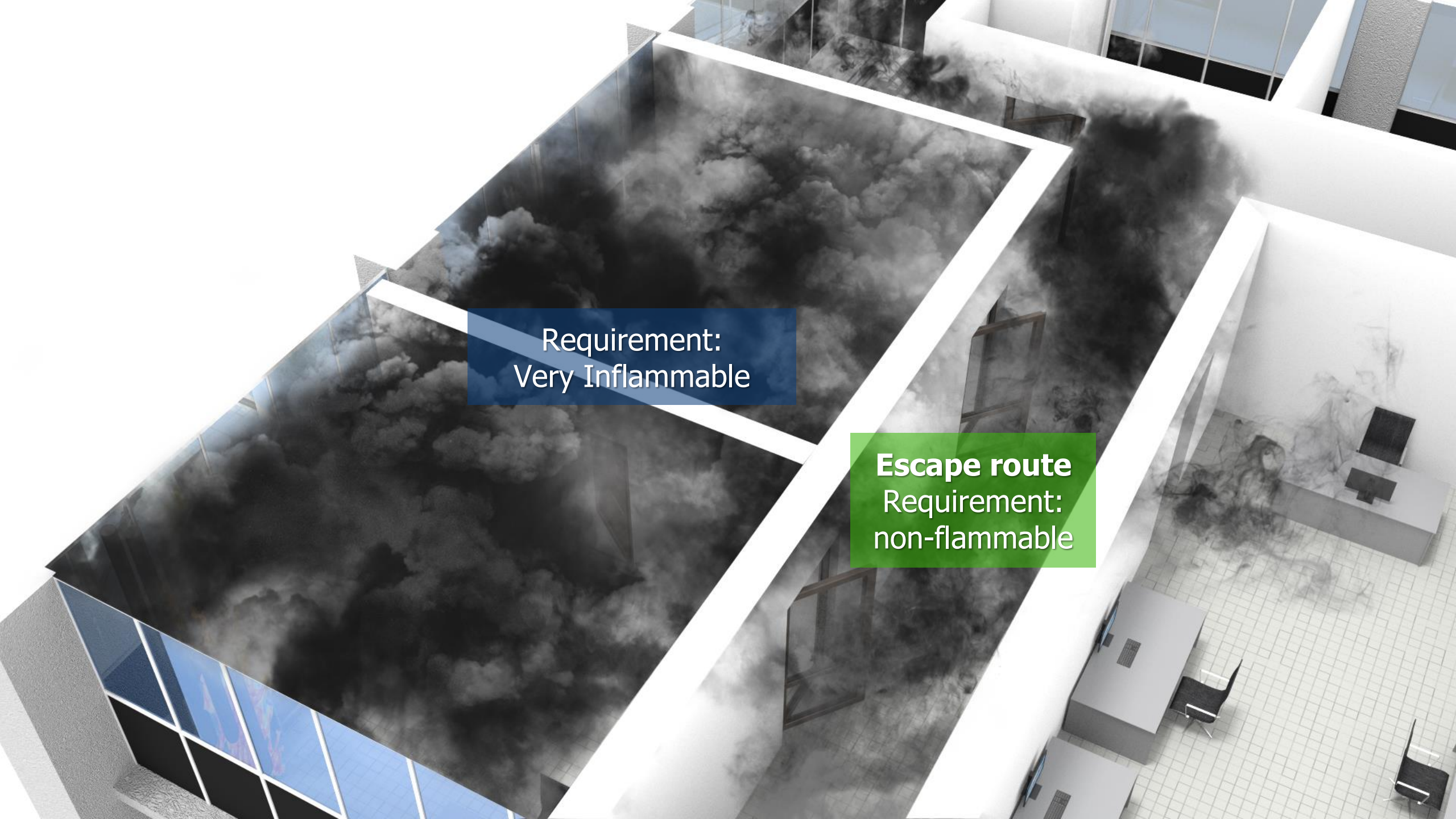
Requirement:
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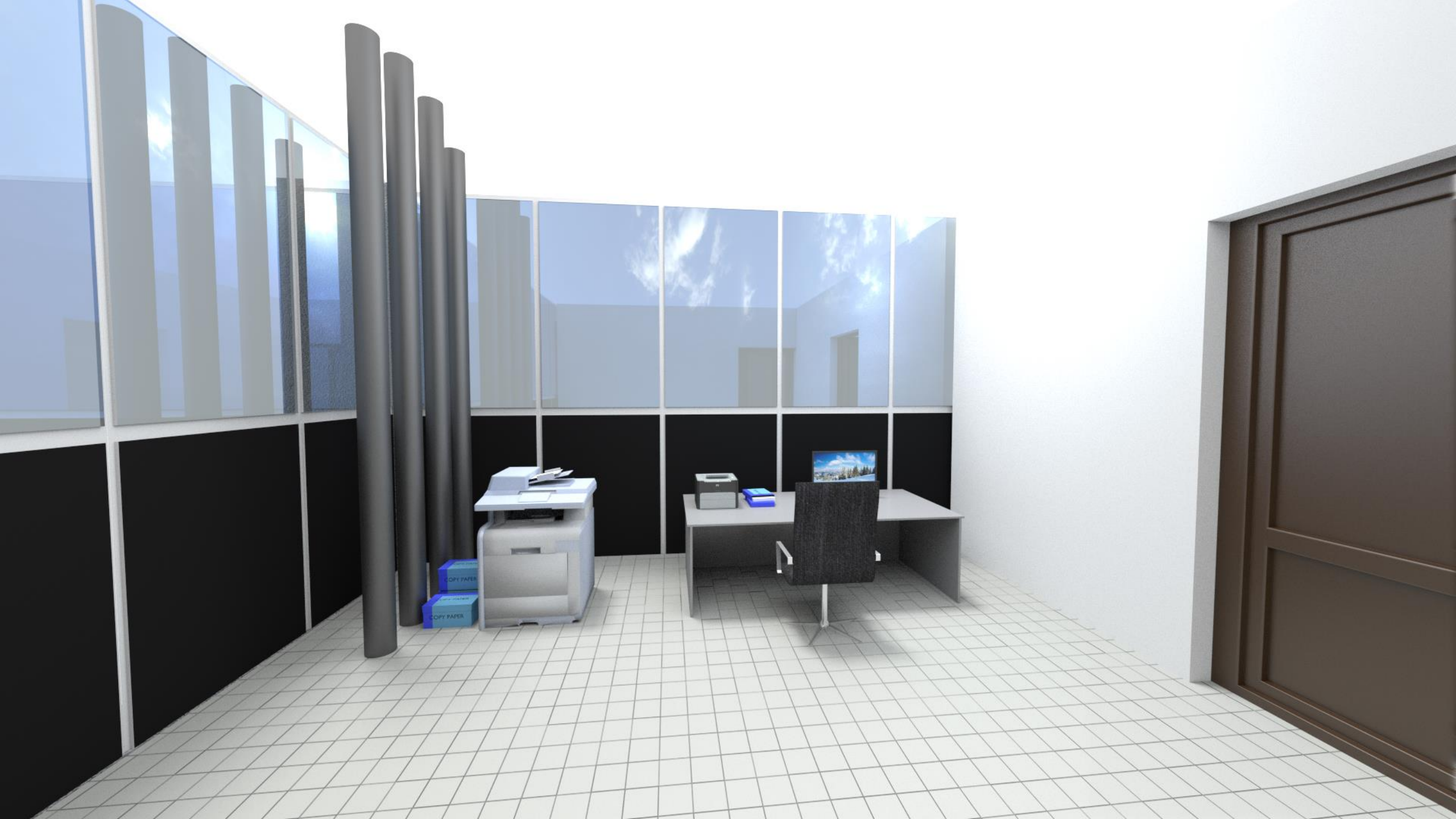
Escape route
Requirement:
non-flammable


thermasmart PRO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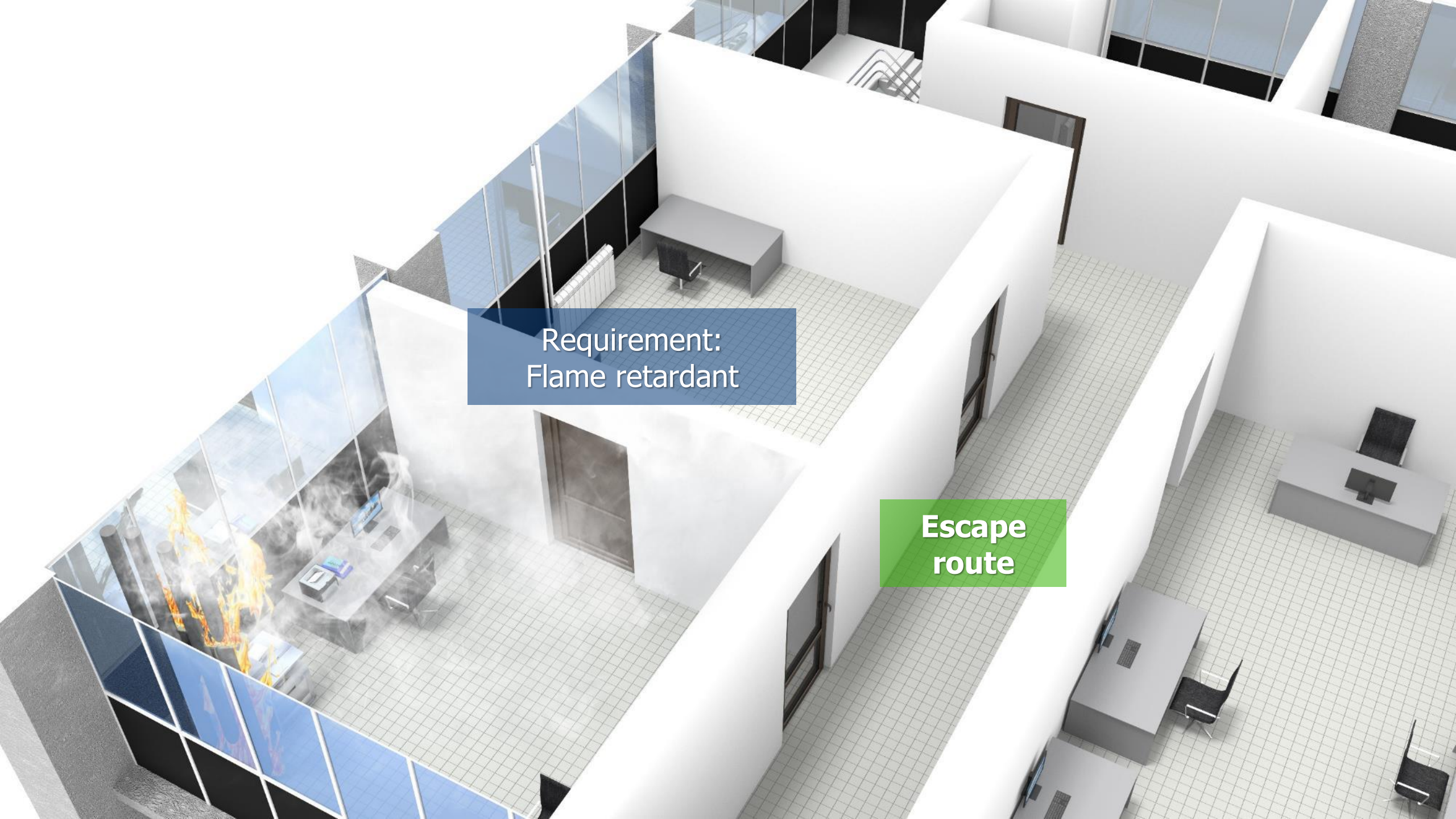
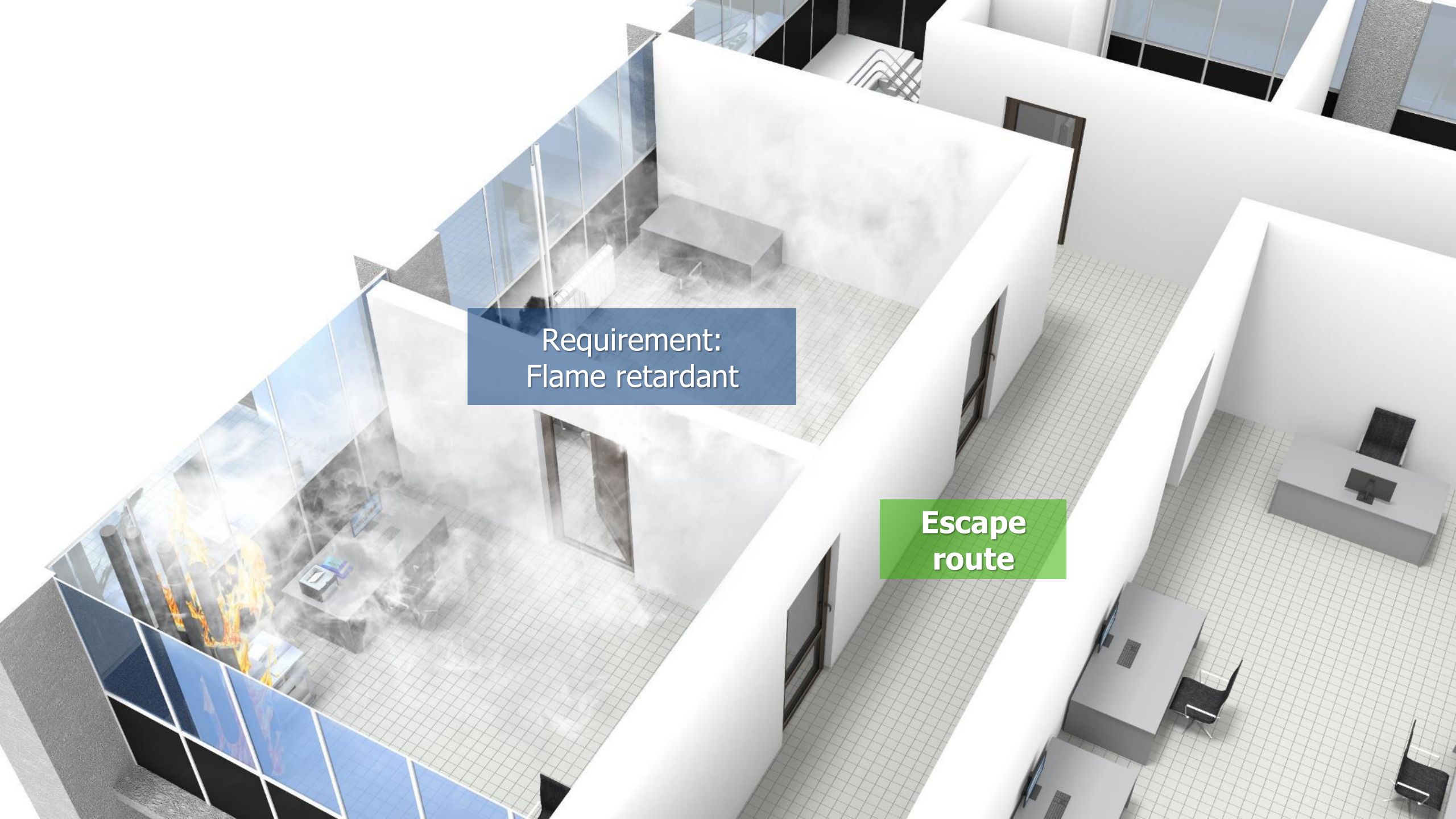

Requirement:
Flame retardant
Escape
route


Requirement:
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Escape
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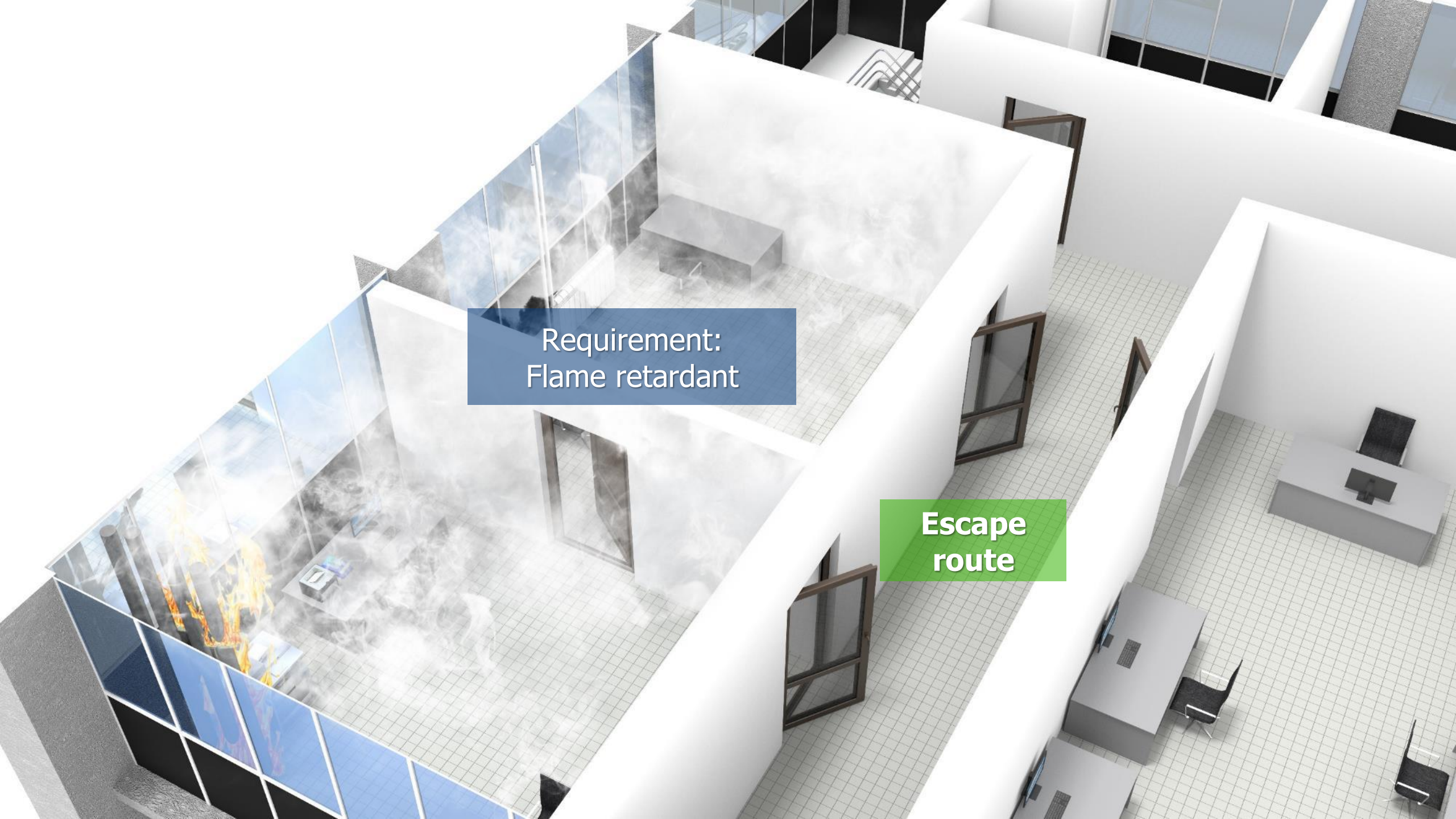
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Flame retardant
Escape
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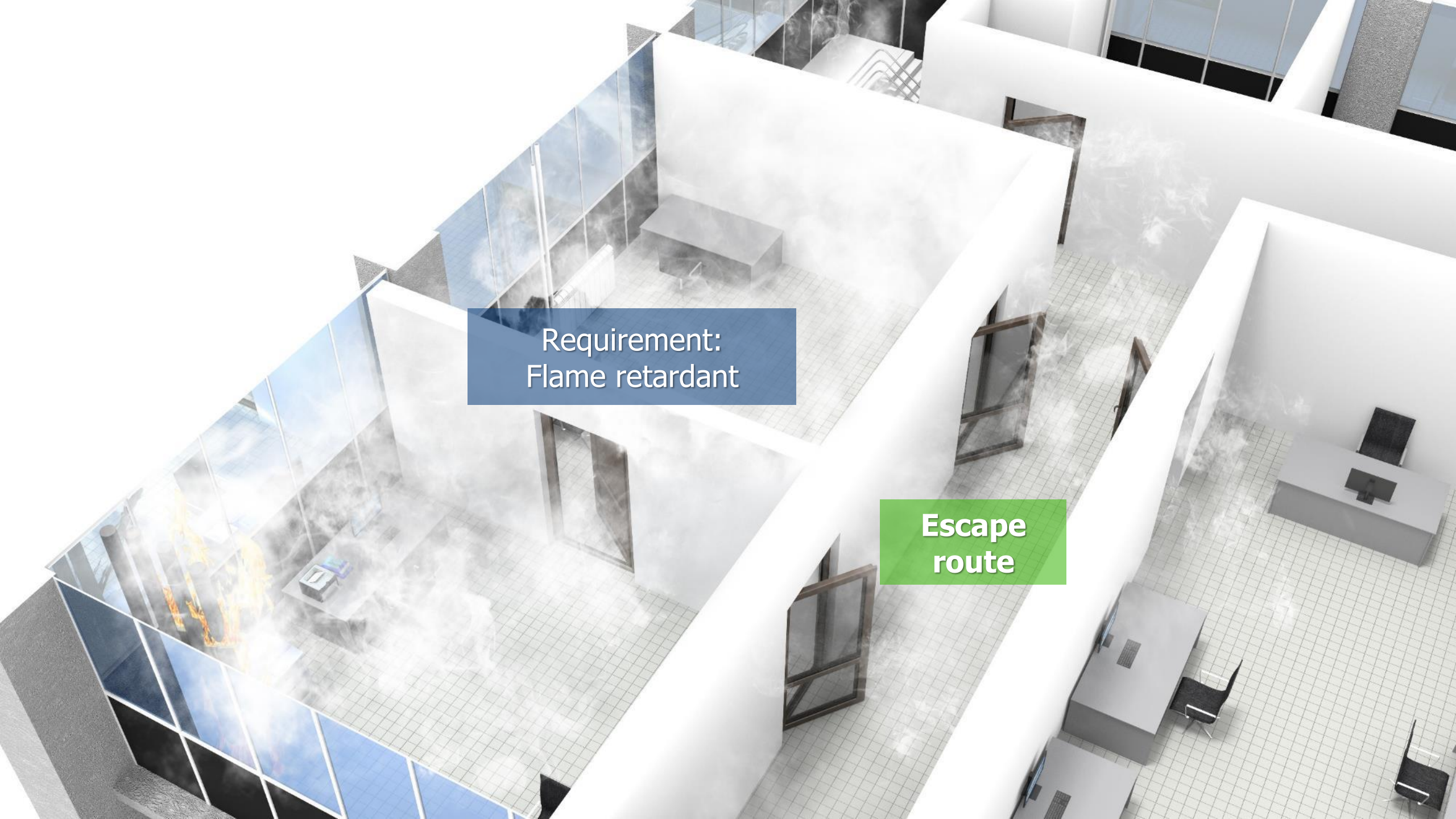

Requirement:
Flame retardant
Escape
route

thermasmart PRO

Fireclass: B_L **s1** d0

Thus the escape route will be visible!

Fire Properties

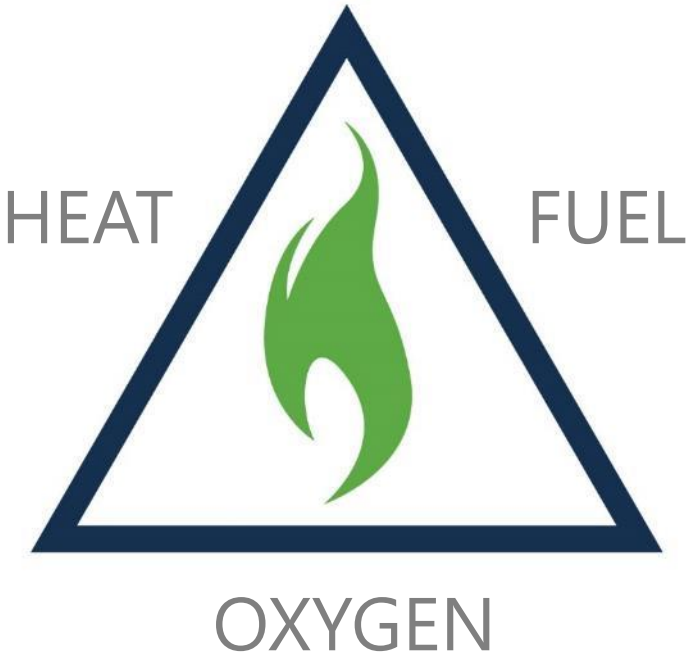
Influenced by:

Fuel	→	Polymer
Oxygen	→	In air
Temperature	→	Ignition

Availability of Flame Retardants

Important for:

Safety of people
Rescue of the building



Values:

ThermaSmartPro is self-extinguishing [B_L,S1,D0]
ThermaSmartPro doesn´t have burning droplets [B_L,S1,D0]
The smoke ThermaSmart Pro generates is very low in toxicity and has a low density!

Smoke density

Influenced by:

Polymer and (FR) additives
Heat or Fire

Measured by:

Smoke Chamber / Light Sensor
SBI (Single Burning Item EU standard)

Values:

ThermasmartPro smoke SBI [B_L,S1,D0]
ThermasmartPRO has a smoke density 3 times lower than rubber.
The visibility in the room with smoke of the rubber was 3%,
in the room with smoke of ThermaSmartPRO 27%

Smoke Toxicity

Influenced by: Polymer and (FR) additives

Measured by: IMOABD 0031 (measure toxicity)

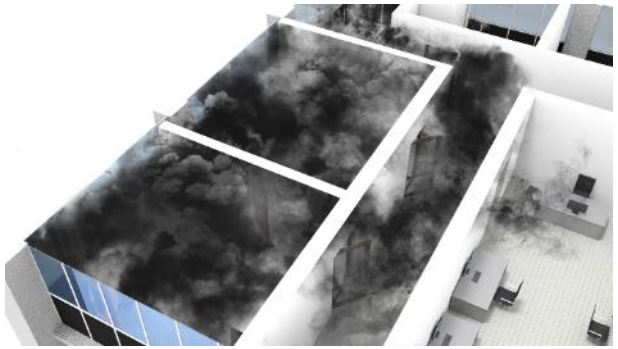
Values: The smoke ThermaSmart Pro generates is very low in toxicity and has a low density!

Rubber produces smoke with high levels of toxic HCL and Cyanides

Chemical Worst case scenario	Results ThermaSmart PRO	Results Rubber	Limits IMO
CO Carbon monoxide	243	679	1.450 ppm
HBr Hydrogen Bromide	<10	<10	600 ppm
HCl Hydrogen Chloride	64	897	600 ppm
HF Hydrogen Fluoride	<5	<5	600 ppm
HCN Hydrogen Cyanide	<2	50	140 ppm
SO_2 Sulfur Dioxide	<10	50	120 ppm
NO_x Nitrogen Oxide	<20	<20	350 ppm

What does it mean

Much more smoke generated by a rubber…



…compared to ThermaSmartPro

Visibility in the room that is burning with rubber is only 3%.....
Where and how can I find the exit?!

The smoke ThermaSmartPRO generates is very low in toxicity

Rubber generates highly toxic smoke:

- Hydrogen Cyanides
- Chlorides
- Sulfur Dioxide

Technical

Insulation value

Vapour and a-polar

Condensation

Fire safety

Environment

Material

Stress crack

UV

Mechanical

Apples with Pears

Practical

Glue

Heatplate

Installation

Assortment

Reclaim

Commercial

Cases

Certificates

Applications

Distributor

Engineer

Installer

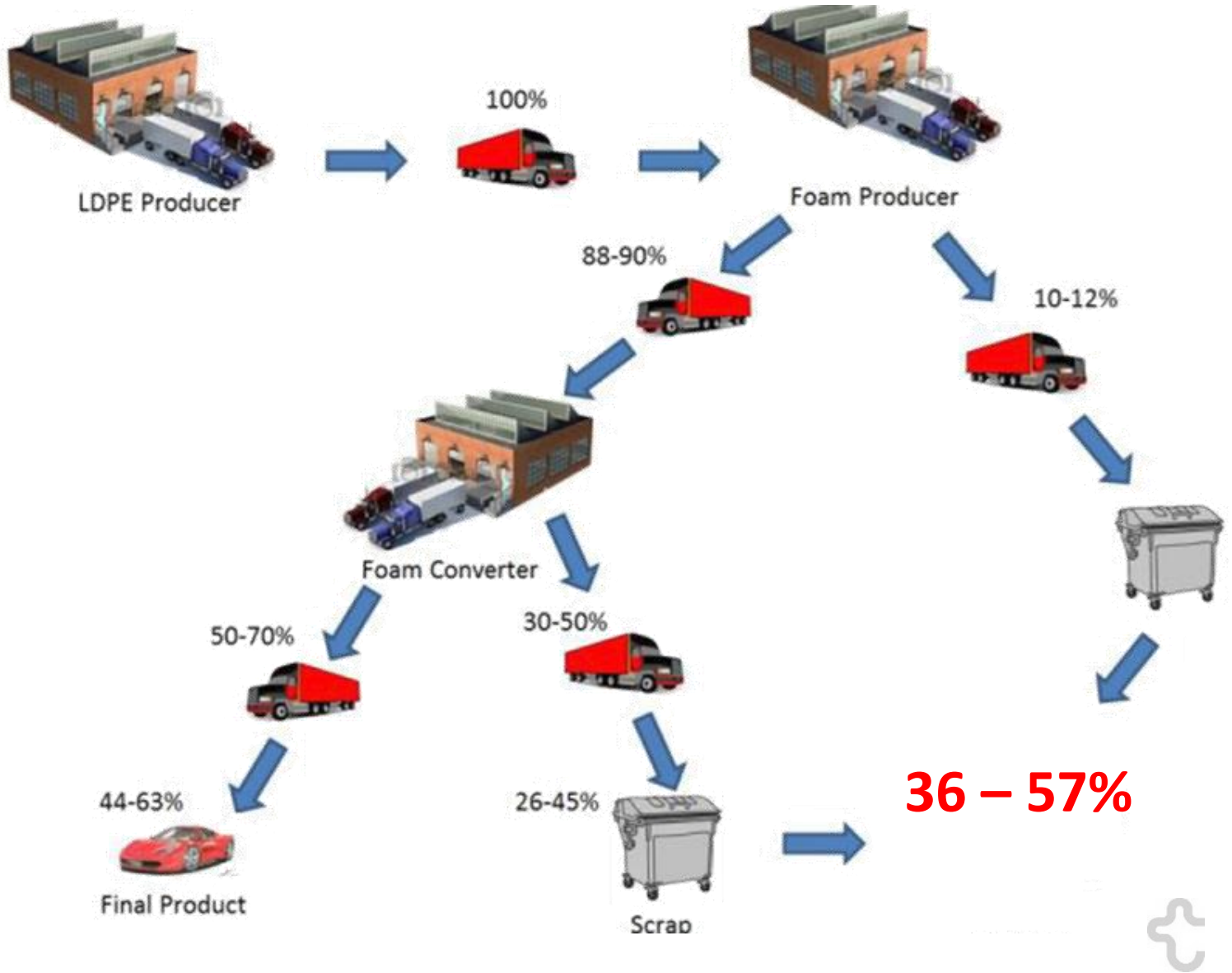
Insulator

Environment

Thermasmart Pro sheet:

- Recycable
- (H)CFC free
- RoHS compliance
- REACH compliance
- EPD/LCA
- VOC compliance
- ***No Azodicarbonamide***

Scrap Ratio's Europe Crosslink PE

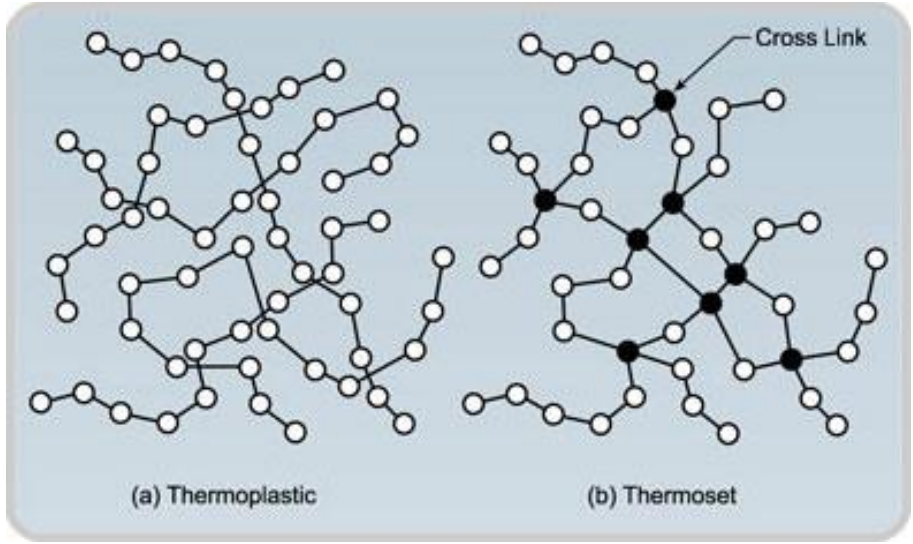


Recycling

Influenced by: Polymer type:
Thermoplastic
Thermoset / Crosslinking

Value: ThermaSmartPRO:
Thermoplastic = Fully recycable

Rubber:
Crosslinking = not recycable



CRADLE TO CRADLE
PRODUCTS
INNOVATION
INSTITUTE

LICENSED MARKS:

Cradle to Cradle Certified™ Bronze

THE LICENSED MARKS IDENTIFIED ABOVE MAY BE LICENSED TO:

Thermaflex International Holding B.V

FOR THE BELOW LISTED CERTIFIED PRODUCTS ASSOCIATED WITH THE NAME:

ThermaSmart PRO

Cradle to Cradle Products Innovation Institute

ISSUE DATE
22 March 2016

CERTIFICATION #
2809

EXPIRATION DATE
21 March 2018

LEAD ASSESSMENT BODY:
EPEA GmbH

Only the following products are considered Certified Product(s) within the scope of this certification and the associated Trademark License Agreement:

ThermaSmart PRO Tubes, ThermaSmart PRO Sheet, produced by Thermaflex Netherlands B.V. or Thermaflex Izolacji Sp. z o.o.

Certified under Version 3.1 of the Cradle to Cradle Certified™ Product Standard
Use of Licensed Marks is subject to terms and conditions of the C2CPII Trademark License Agreement and Trademark Use Guidelines.
Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute

CRADLE TO CRADLE
PRODUCTS
INNOVATION
INSTITUTE

Material Health
BRONZE

ThermaSmart PRO

ISSUED TO Thermaflex International Holding B.V

STANDARD 3.1

EXPIRES 21 March 2018

LEAD ASSESSMENT BODY
EPEA GmbH

ASSESSED APPLICATIONS
Manufacturing, indoor and outdoor usage, disassembling, recycling, incineration,landfilling

PRODUCTS COVERED
ThermaSmart PRO Tubes, ThermaSmart PRO Sheet, produced by Thermaflex Netherlands B.V. or Thermaflex Izolacji Sp. z o.o.

PRODUCT OPTIMIZATION SUMMARY

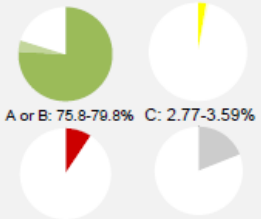
- [x] *Cradle to Cradle Certified*™ Banned List compliant
- [x] Material Health optimization strategy developed
- [ ] No exposure from carcinogens, mutagens, or reproductive toxicants
- [ ] Meets VOC emissions testing requirements
- [ ] Product is fully optimized - does not contain any GREY or x-assessed chemicals
- [ ] Process chemicals have been identified and none are GREY or x-assessed

PERCENTAGE OF HOMOGENEOUS MATERIALS ASSESSED BY WEIGHT

81-100%

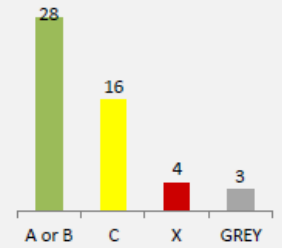
Inventory threshold for chemicals in each material = 100 ppm

ASSESSMENT RATINGS BY WEIGHT



% HOMOGENEOUS MATERIALS

PRODUCT OPTIMIZATION



51 HOMOGENEOUS MATERIALS

Technical

Insulation value

Vapour and a-polar

Condensation

Fire safety

Environment

Material

Stress crack

UV

Mechanical

Apples with Pears

Practical

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Engineer

Installer

Insulator

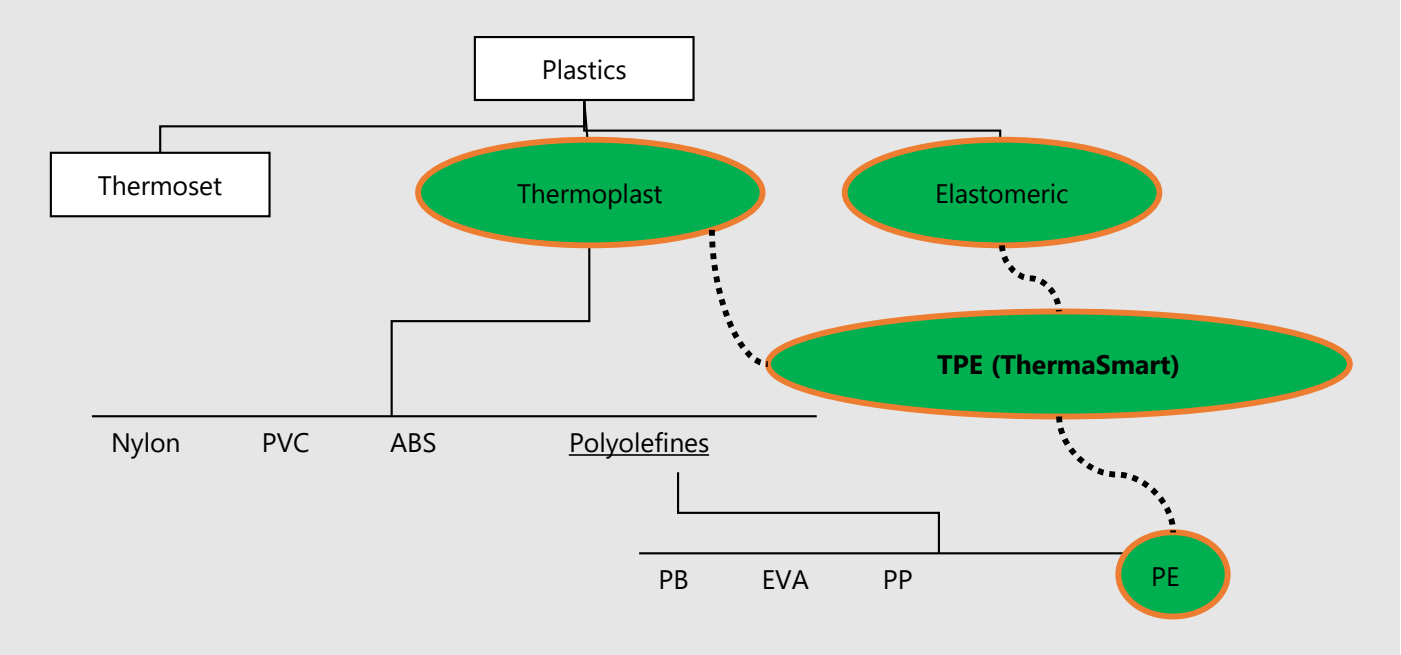
Material

Thermaflex products are exclusively made from modern plastics that are environmentally friendly in production, easy to recycle and upon combustion at end-of-life, are not toxic.

Thermaflex material contains:

- Polymer
- Foaming Agent (Isobutene)
- Nucleating Agent
- Cell Stabilizer
- Additives (*depending on desired properties*)

Diagram Title



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Season Cracking

Influenced by:

Azodicarbonamide / Ammoniak
(Blowing Agent of Foam)
Water
Availability of two kind of metals → Brass Couplings

What happens:

Ammoniak dissolves into water and
reacts into Ammonium;
Ammonium reacts with Brass, causing corrosion

Important for:

Durability of the system

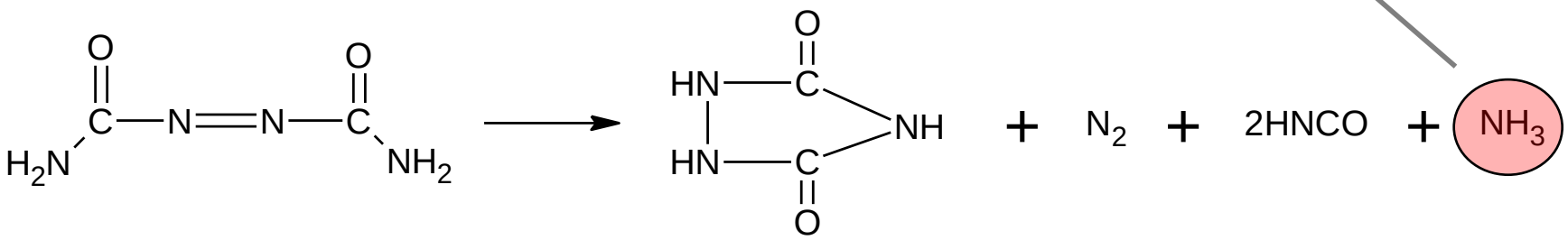
Values:

Not possible with ThermaSmartPRO
Reason: Blowing Agent is Isobutane
→ no Ammoniak available

Possible with Nitrile or EPDM foames
Reason: Azodicarbonamide → Ammoniak available

Season Cracking

$[Cu(NH_3)_4]^{2+}$



azodicarbonamide urazol nitrogen cyanic acid ammonia

Technical

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UV Resistance

Influenced by:
Polymer-Backbone and additives
Sunlight (Quantitative and Qualitative)
Temperature (Quantity and cycle)
Water (Quantitative and phase)

What happens:
Sun light attacks polymer
Polymer chain breaks
Polymer foam pulverizes

Value:
MC Foam → excellent resistance

Because:
Saturated Polymer vs. Unsaturated

Availability of Carbon Black
Availability of UV additives

MC Foam

UV damage
Rubber

UV Resistance

Influenced by:
Polymer-Backbone and additives
Sunlight (Quantitative and Qualitative)
Temperature (Quantity and cycle)
Water (Quantitative and phase)

What happens:
Sun light attacks polymer
Polymer chain breaks
Polymer foam pulverizes

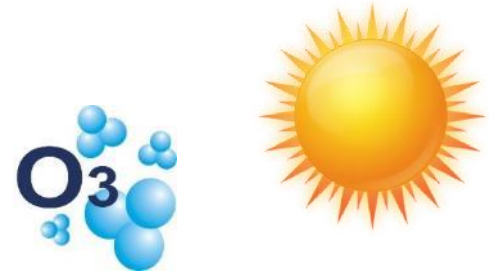
Value:
ThermaSmartPRO → excellent resistance

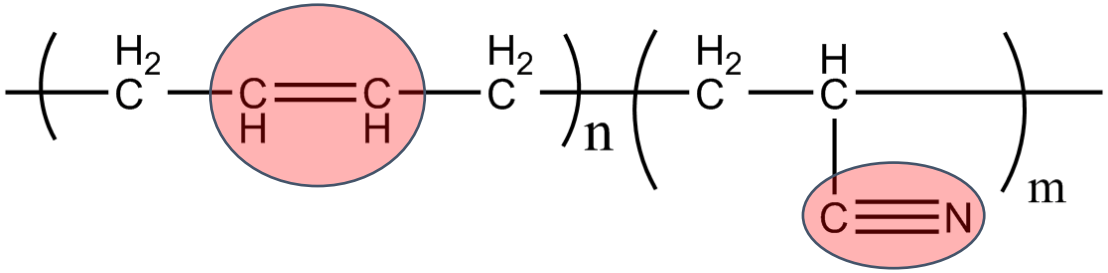
Because:
Saturated Polymer vs. Unsaturated Rubber
Availability of Carbon Black
Availability of UV additives

UV damage Rubber

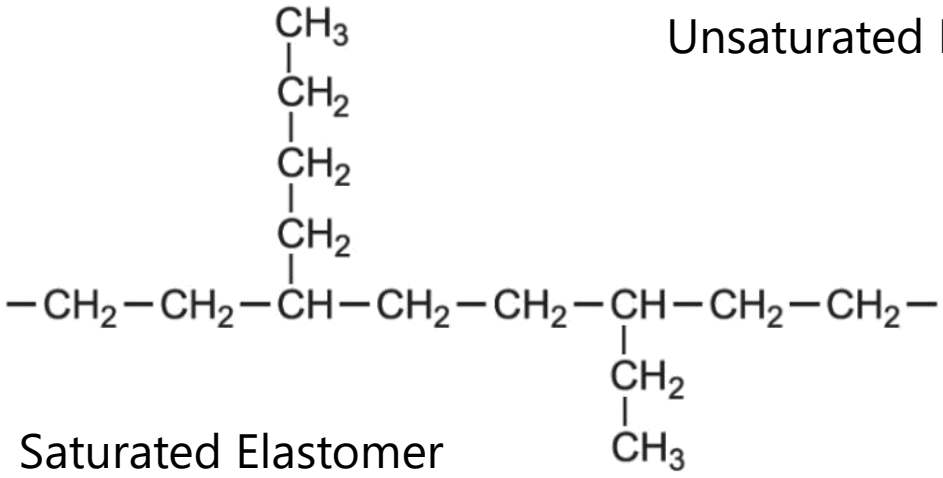
Thermasmart Pro Insulation

UV & Ozone resistance Polymer Backbone





Unsaturated Rubber



Saturated Elastomer

Technical

Insulation value

Vapour and a-polar

Condensation

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Environment

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Stress crack

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Mechanical Properties

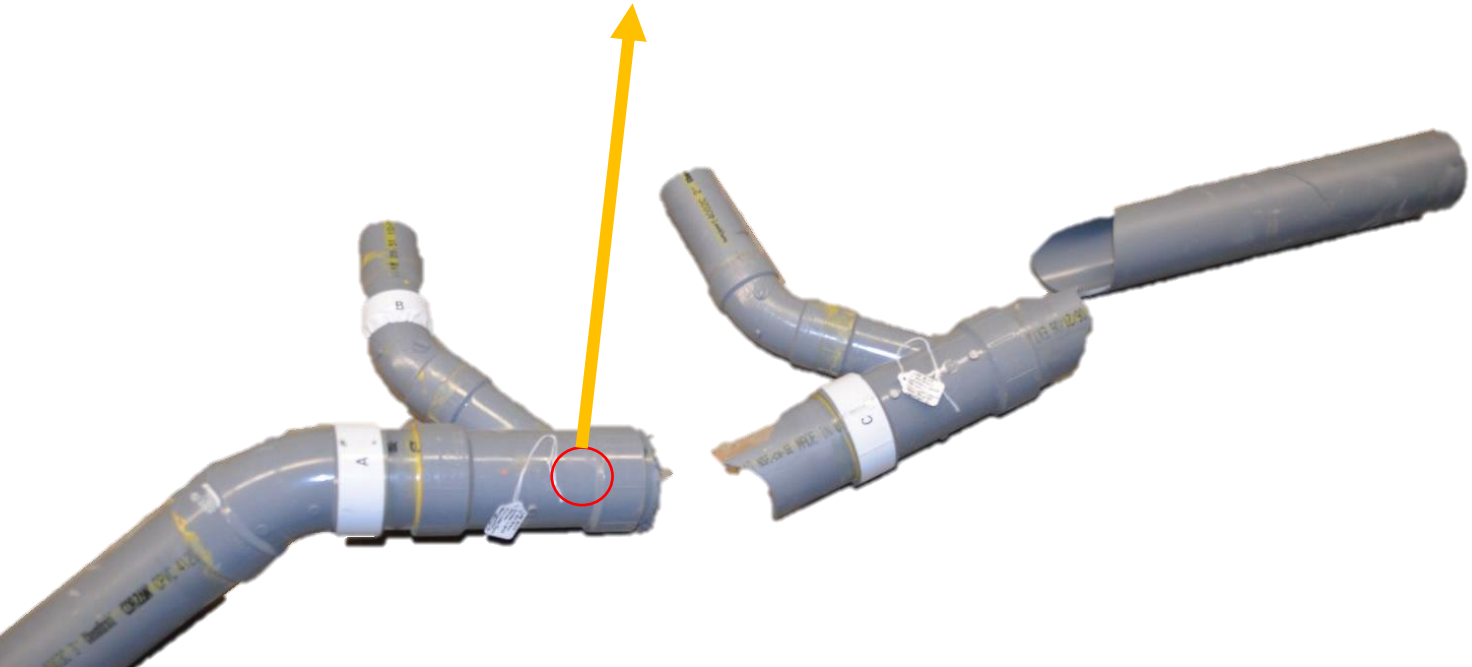
Influenced by:	Polymer & additives Foam structure
Measured by:	Stress-Strain Equipment (value = %)
Important for:	Application of material Resistance against damaging
Value:	ThermosmartPRO is based on a blend of Thermoplastic Elastomeric Polymers

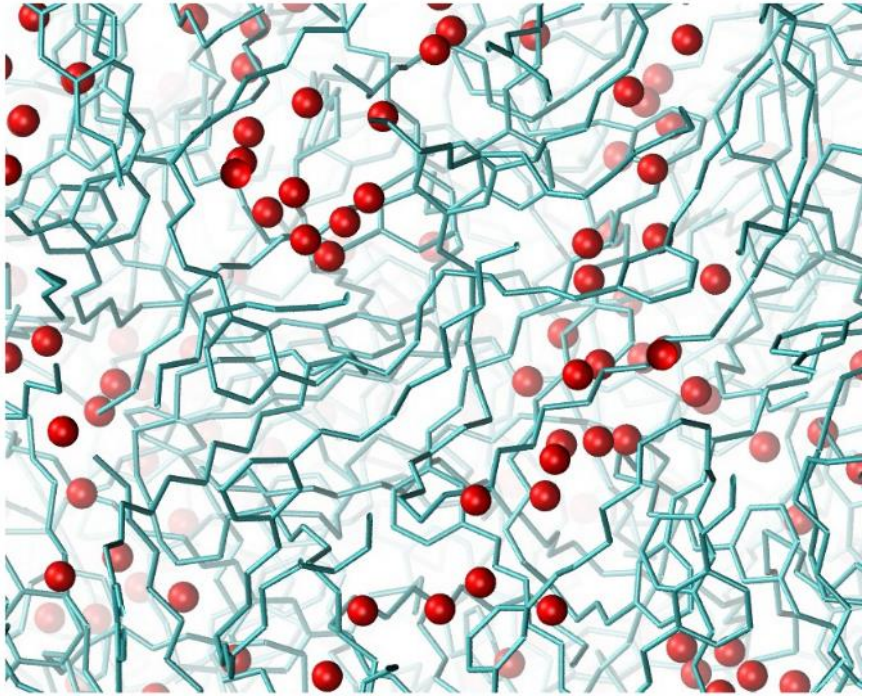
Mechanical Properties

Plasticizers

Plasticizers are not chemically bound to the base polymer so they can easily leach and evaporate. This will reduce the flexibility of the product over time.

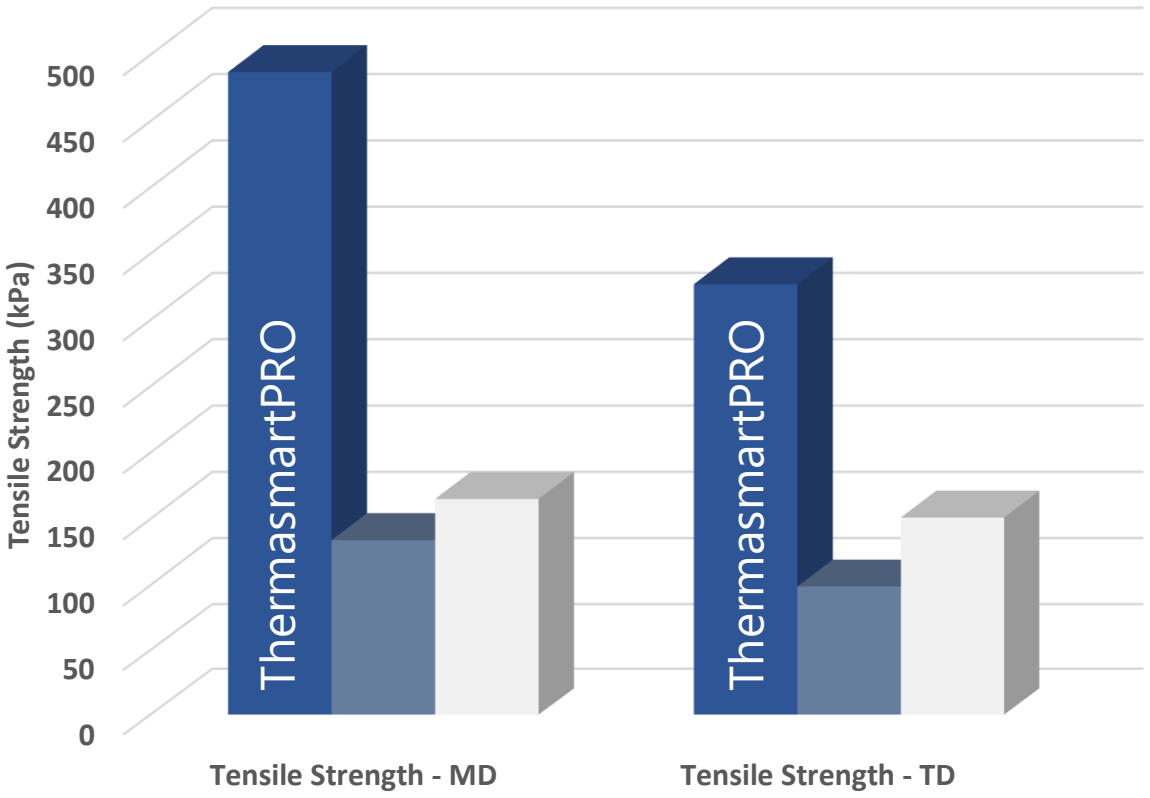
PVC and Rubber = Plasticizers to improve flexibility
ThermaSmartPRO = No plasticizers



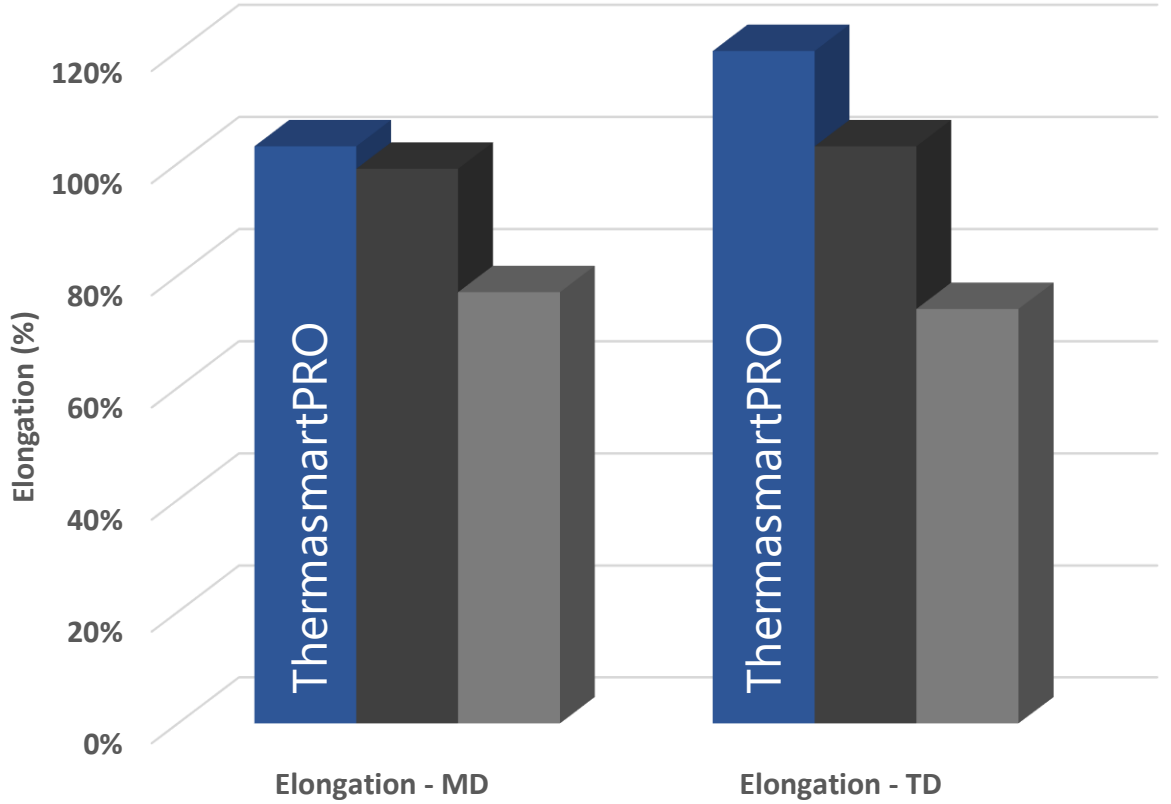


Mechanical Properties [TSPRO vs. Rubber vs. Crosslink]

Tensile strength

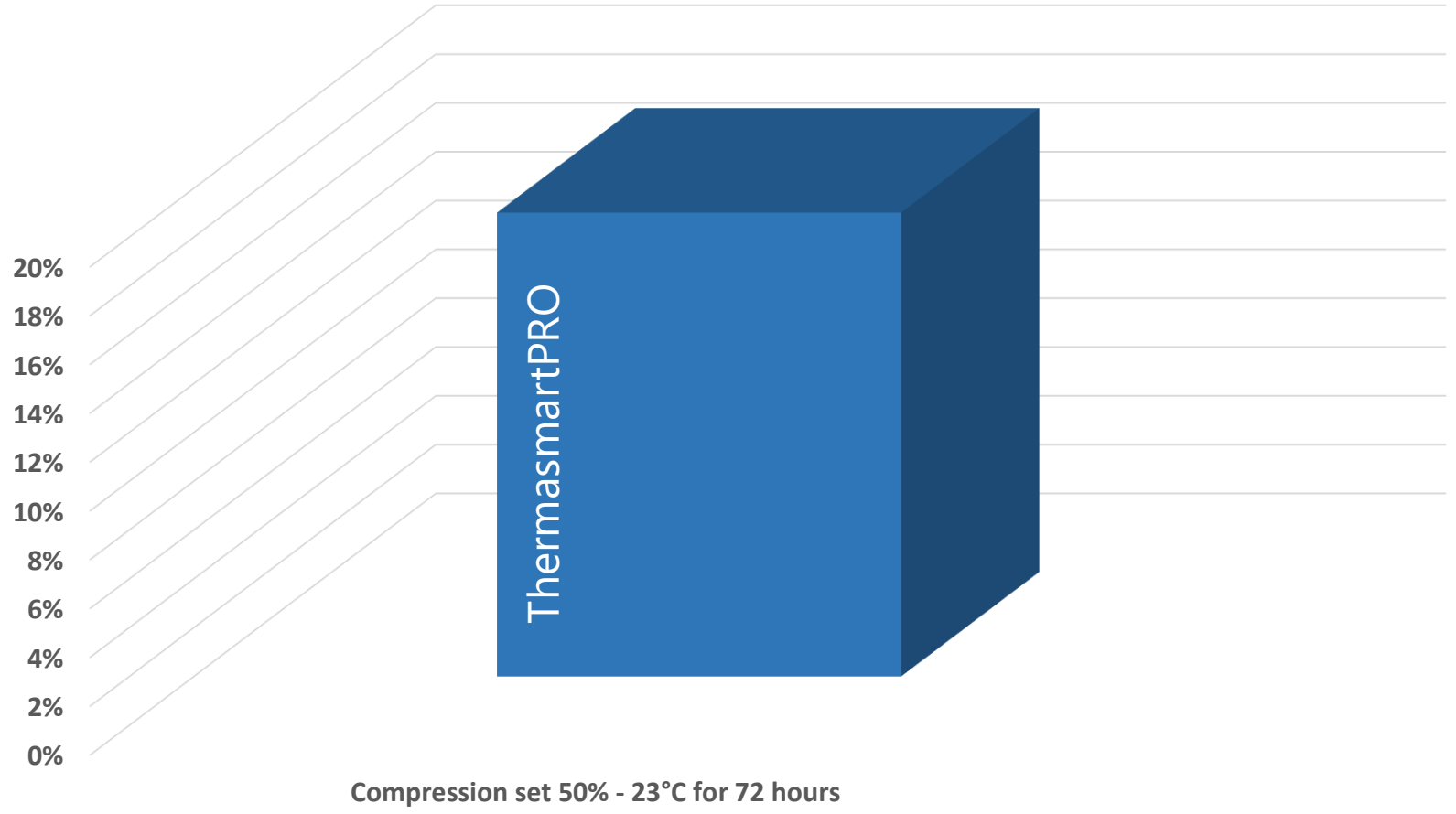


Elongation



Mechanical Properties [ThermaSmart Pro]

Compression set



+58%

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Rubbers - Thermoplastics

Test	**Thermasmart Pro**	A-Brand Rubber	K-Brand Rubber	PE
Thermal Conductivity	0.034 W/mK at 0°C	0,036 W/mK at 0°C	0.034 W/mK at 0°C	0.037 W/mK at 0°C
Density	30 kg/m^3	50 – 100 kg/m^3	50 – 100 kg/m^3	Not declared
Smoke density (SBI)	BL-S1-D0	BL-S3-D0	BL-S3-D0	Not declared
Smoke Toxicity Cyanides (IMO)	<2ppm	50ppm	50ppm	Not declared
Smoke Toxicity HCL Chloride (IMO)	64ppm	897ppm	897ppm	Not declared
Water Vapor Permeability	10000 µ	7000 µ	10000 µ	Not declared
Water absorption	0.05 kg/m3	Not declared	Not declared	Not declared
Temperature limit	-80 / 95 °C	-50 / 110 °F	-50 / 110 °C	- 73 / 99 °C
Cradle 2 Cradle	Yes	No	No	No
EPD	Yes	Yes	No	No

Technical

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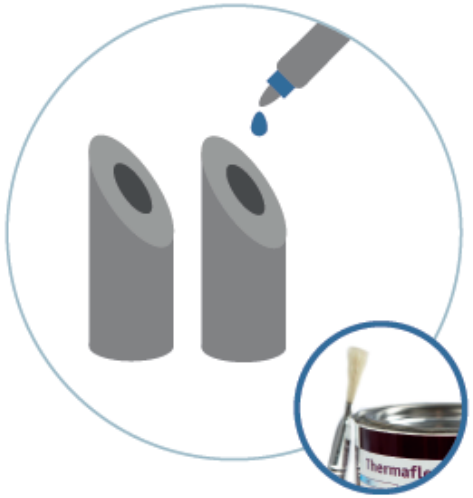
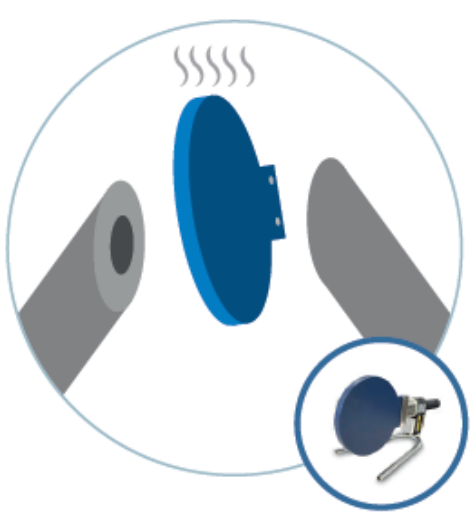
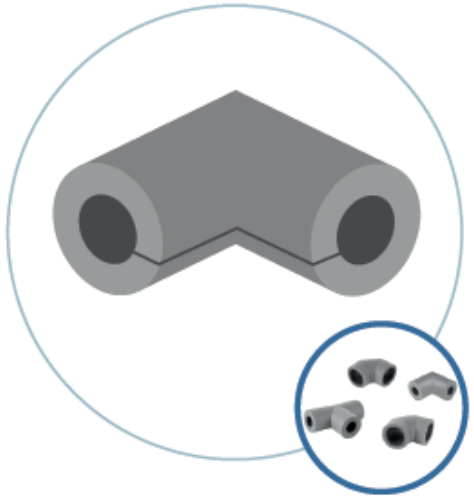
Welding your system

Craftsmanship in the forefront

	Glue	Heatplate	Readymade
Ease & time savings			
Reliability			
Installation cost savings			
Sustainability			







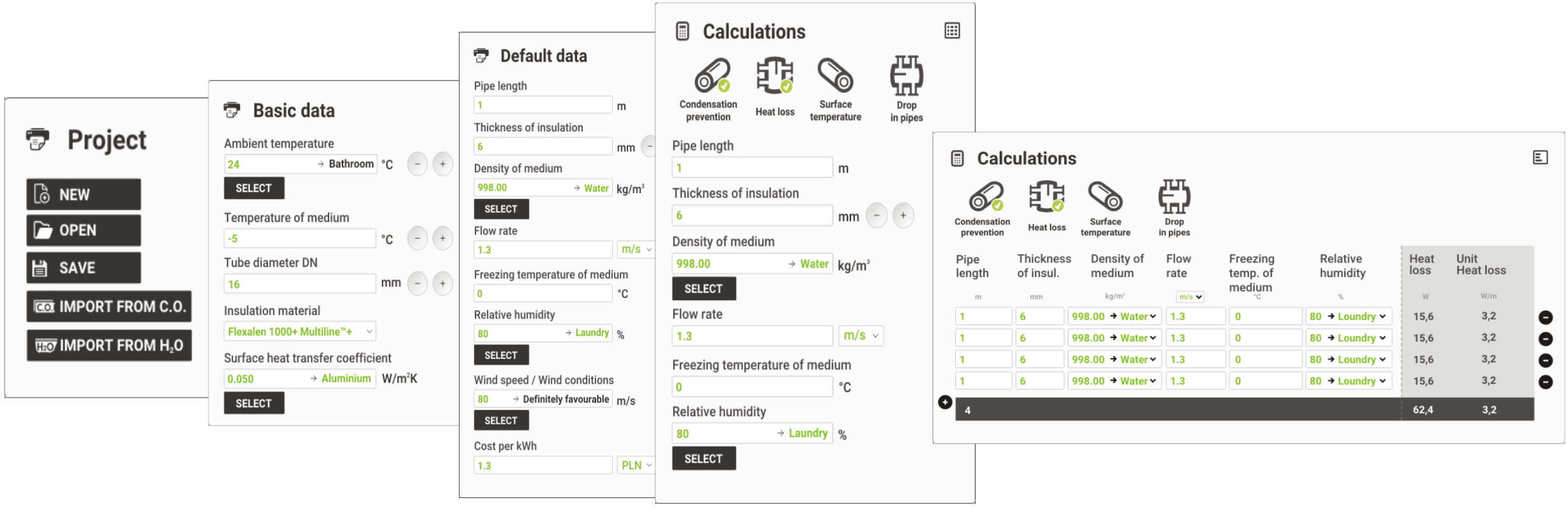
Bringing back craftsmanship in insulation

Prefab it yourself

Insulate like a pro?
Upgraded thermasmart PRO Toolbox

Design Installation Performance

Thermaflex Insulation Calculator



End users

For end users who are unsatisfied with:

- Underperformance of HVAC because of poor insulation (condensation and excessive discomfort and energy loss)
- Resulting in high maintenance and repair costs
- Health and safety risks for inhabitats

ThermaSmart PRO offers a solution which:

- Guarantees a rocksteady performance over long lifetime
- Is Cradle to Cradle Certified ™ Bronze and Material Health Certified ™
- Hardly produces any toxic smoke in case of fire

Contractors

For contractors who are unsatisfied with:

- Complaints and repair work (€) after job is finished
- Stress crack corrosion initiated;
- The health liability risks posed by the chemicals used in the products he works with (VOC's and glue fumes)
- The additional cost of cladding

ThermaSmart PRO offers a solution which:

- Is resistant to the wear and tear during the installation works
- Guarantees a reliable HVAC installation
- Is Cradle to Cradle Certified ™ Bronze and Material Health Certified ™
- Is as fast to install as other materials, because of prefab possibilities
- Does not need after-treatment, due to high mechanical strength

Distributors

For distributors who are unsatisfied with:

- Non-compliance with LEED and other sustainable certifications and/or requirements from building owners and/or other stakeholders
- No real alternative for rubber
- Customer complaints and claims (repair work)
- Transport damage
- High stocks due to wide variety of insulation materials for different applications

ThermaSmart PRO offers a solution which:

- Ensures sustainability in their assortment
- Tackles condensation problems
- Enables a one stop shop with other SIG products combined Logistic and credit facilities via SIG
- Is a universal solution suitable for any application (Heating, Cooling, Ventilation, Sanitary and Refrigeration)

Value to End User	Value to Contractor	Value to Distributor
• Superior moisture resistance • 100% “Green” product • 100% Recyclable • Weather resistant • High international Fire ratings • Excellent health ratings • High durability • Total benefit of ownership	• Faster • Composed on non-toxic materials • Healthy during installation • Weather resistant • Training and Project support • Mechanical strength • One solution for many applications • Not initiating stress crack corrosion	• Healthy during installation • Production takes place in only one machine • Can be recycled in its own process • Composed of non-toxic materials • One solution for more applications (less stock) • One stop shop @ SIG

Why EU customers should buy Thermasmart Pro?

Different Climates – one solution for all, Thermasmart pro

Customers of pipe insulation should no longer take for granted:

- Condensation due to damaged skin of rubber/mineral wool/glassfiber/pur, or water absorption
- That large corporations lobby away dangerous facts (that toxicity has been removed from certification requirements)
- That sick building syndrome can occure to unsuitable materials being used inside building/homes/schools etc.

References

Court of Justice – The Hague

Thermasmart Pro for cooling, sanitary and heating

Symfonie – Amsterdam

Thermasmart Pro for cooling, sanitary and heating

Jubi – The Hague

Thermasmart Pro for cooling, sanitary and heating

References

JW Marriott - New Delhi India

- Thermasmart Pro for cooling and sanitary
- Thermasmart Pro Sheet for ventilation

Ritz Carlton - Cancun Mexico

Thermasmart Pro for cooling

- Thermasmart Pro Sheet for ventilation

JW Marriott - Cancun Mexico

Thermasmart Pro for cooling

- Thermasmart Pro Sheet for ventilation

Marriott HOTELS & RESORTS

Approved by:

Terry C. Smith
VP Engineering and
Technical Services
Marriott International
Architecture &
Construction Division

References

Hilton Panama

- Thermasmart Pro for cooling

Waldorf Astoria Panama

- Thermasmart Pro for cooling

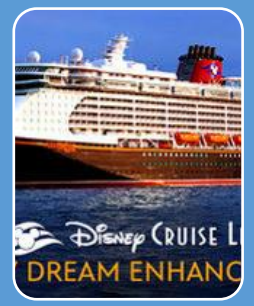
References

Hyatt Hotels

Safe sailings

Holland America Line

- Thermasmart Pro selected for 2 pilot projects to remove condensation (rubber) problems



Disney Cruises

- Thermasmart Pro selected for a pilot project to remove condensation (rubber) problems

Green shopping

Walmart

- Over a 100 stores supplied in Mexico
- Key USP Stress Crack Corrosion / condensation

Expansion into Central America with Walmart, Hill Phoenix and Owens Corning

Above and beyond industry standards

Certificates

- Cradle to Cradle Certified™ Bronze Product Certificate
- Cradle to Cradle Certified™ Bronze Material Health Certificate
- CE system 1 certified (including 3rd party control)
- Wheelmark certification for shipbuilding

Fire and smoke

- SBI B_L, s1, d0
- IMO FTP Code res. MSC.61(67) smoke generation (ISO 5659-2)
- UL 94

UV

- UV resistance tested per ISO 4892-2 Xenon-arc

Insulation

- Lambda 0.038 W/mK at 40°C (EN 12664)
- Lambda 0.034 W/mK at 0°C (EN 12664)

Water

- Water vapor resistance μ-value ≥ 10.000 (EN 13469)
- 0.1 kg/m2 (EN 1609)

Service Temperature

- Wide service temperature range
- Minimum -80°C Maximum 95°C (EN 14707)

Availabilities

- Standard length: 2m
- Available in wall thickness: 6-30 mm
- Available in diameters: 6-125 mm
- Color: dark grey

Moving upward, we'll do our best to meet your wishes with continuous system innovations.
For the most up-to-date info, please have a look on **www.thermaflex.com**

At Thermaflex, we ensure our solutions should leave a positive mark on the world

This certifies it

CERTIFIED™
cradle to cradle
BRONZE

EPD VERIFIED

Thank you!
Please share your thoughts.

Let’s connect!

Jan Hønning
General Manager Thermaflex Nordics
J.honning@thermaflex.com

www.thermaflex.com

Certified B Corporation

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taking care of energy and environment

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