MTX for use in facades/cladding in Netherlands - (Netherlands Building Regulations)

The Building Decree (2012) (https://www.bouwbesluitonline.nl/) in the Netherlands details the requirements for the reaction to fire performance of buildings in the Section 2.9 "New Structures – Reducing the development of fire and smoke". The requirements are detailed in the table 2.68 Appendix A.

For "*outer surfaces*" (other than protected escape routes) the limit requirement is Euroclass D, with Euroclass B required for height above 13m and for the first 2.5m for building with accessible floors above 5m from the ground.

It is MEDITE SMARTPLY understanding that the reaction to fire requirement in the Building Decree relates to the performance of the external systems as a whole and not to the performance of individual components of that system (which would usually include substructure, insulation, panel with coatings and/or laminates).

This is based on extracts from various publications:

1- SKH-Publicatie 15-04 Brandklasse houten gevelbekleding versie 2 d.d. 07-09-2017 (section 5 Page 13)

"De eis in het Bouwbesluit wordt niet gesteld aan het materiaal maar aan de samengestelde constructie."

"The requirement in the Building Decree is not imposed on the material, but on the composite construction."

2- https://www.bouwtotaal.nl/2020/06/hoe-bepaal-ik-brandveiligheid-gevel/

"Het Bouwbesluit stelt echter eisen aan de gevelconstructie als geheel."

"However, the Building Decree imposes requirements on the facade construction as a whole."

3- Opinion of Dutch Expert on Building Regulations Ref: Appendix B

The notable exception to this requirement is for open joints cladding (cladding where a gap to the cavity exists between all the individual boards). Extract from SKH-Publicatie 15-04 (section 5 Page 13)

"Voor een open buitenblad dat moet voldoen aan brandklasse D is het uitgangspunt, dat als alle onderdelen "kaal" getest voldoen aan brandklasse D, de samengestelde constructie voldoet aan brandklasse D."

"For an open outer leaf that must comply with fire class D, the basic premise is that if all components "bare" tested meet fire class D, the composite construction meets fire class D. "

In addition, there is an exemption rule. A maximum of 5% of the total surface of the facade does not have to meet the requirement fire rating. The purpose of this exception is to use elements sporadically that do not (or cannot) meet the class.

For openings the Building Decree requires that all elements meet requirements of Euroclass D (Section 2.70, §5):

"*Door, window, door or window frame or a structural component deemed equivalent to any of the foregoing shall comply with fire class D as determined in accordance with NEN-EN 13501-1*."

It is MEDITE SMARTPLY understanding that the reaction to fire requirement in the Building Decree relates to the performance of the opening as a whole (frame, hinges, glazing, sash…) and not to the performance of individual components of that system.

MEDITE SMARTPLY supports the use of MEDITE Tricoya Extreme (MTX - fire class E) for use in external applications (cladding, soffits, doors and windows…) providing that the system meets the requirements of the Building Decree.

For details of the technical specifications and 'declaration of performance' please visit the MTX section of our website.

Disclaimer:

The information contained in this document is provided as guidance by MEDITE SMARTPLY. It is the responsibility of the customer and/or end-user of MEDITE Tricoya Extreme (MTX) to ensure that the final use of the panel is checked by the proper authorities on conformity with local circumstances, building codes, regulations and standards and checked by a licensed engineer.

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Appendix A:

Table 2.68 of the Building Decree.

Table 2.68

functional use	applicable paragraphs														limits									
															side adjacent to the						top			
															indoor air			outdoor air						
	inner surface		outer surface					walkable surface		exempt		roof surface		structural component	alteration	temporary structure	additionally protected escape route	protected escape route	other	additionally protected escape route	protected escape route	other	additional protected circulation	protected circulation space	other
Article	2.69		2.70					2.71		2.72		2.73		2.73a	2.74	2.75	2.69			2.70			2.71		
Paragraph	1	2	1	2	3	4	5	1	2	1	2	1	2	*	*	*	1 and 2 [fire class]			1 [fire class]			1 and 2 [fire class]		
1 Residential function:																									
a in a residential building	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	B	D	C	C	D	C_{fl}	C_{fl}	D_{fl}
b for care with a UA. > 500 m^2	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	B	D	C	C	D	C_{fl}	C_{fl}	D_{fl}
c other residential function	1	-	1	2	-	4	5	1	2	1	-	1	-	-	-	-	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
2 Assembly function:											-														
a for child care for children below 4 years	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	B	D	C	C	D	C_{fl}	D_{fl}	D_{fl}
b other assembly function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
3 Detention function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	B	C	B	B	D	C_{fl}	C_{fl}	C_{fl}
4 Health care function																									
a with bed area	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	B	D	C	C	D	C_{fl}	D_{fl}	D_{fl}
b other health care function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
5 Industrial function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
6 Office function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
7 Temporary accommodation function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	B	D	C	C	D	C_{fl}	D_{fl}	D_{fl}
8 Educational function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
9 Sports function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
10 Shop function	1	-	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
11 Other functional use	1	2	1	2	3	4	5	1	2	1	-	1	-	*	*	*	B	D	D	C	D	D	C_{fl}	D_{fl}	D_{fl}
12 Structure other than a building:																									
a tunnel or tunnel-shaped structure for traffic	1	-	1	2	-	4	5	1	2	-	2	1	2	*	*	*	B	B	B	C	D	D	C_{fl}	D_{fl}	D_{fl}
b structure other than a building not listed above			1	2	-	4	5	1	2	-	2	1	2	*	*	*				C	D	D	C_{fl}	D_{fl}	D_{fl}

Appendix B:

Expertisecentrum Regelgeving Bouw (Email 11/06/2020) :

"In the Netherlands we don't have requirements for single materials.

The 2012 Building Decree set requirements for the combination of materials as used (structural component).

The combination has to fulfil the performance described in the Decree determined by NEN-EN 13501-1.

So we have requirements for the end use situation.

The requirements are given in section 2.9 of the enclosed document (version 2012, but not changed afterwards)

So it is not forbidden to use materials of Euroclass E in a outerwall in the case the combination as use has the performance as required in the Decree.

Important are the details and borders of constructions. They cannot be tested with the European test method. So expert judgement is necessary for that element of a wall."

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