New Construction Products Regulation (CPR) and Ecodesign for Sustainable Products Regulation (ESPR)

DG GROW H.1

European Commission

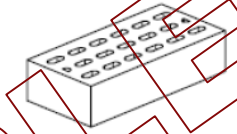
Construction Products Regulation

Aspects related to construction products covered by the CPR using a brick as example

- What the new CPR may regulate,
- What Member States are allowed to regulate nationally,
- What could the ESPR regulate alternatively or additionally.

Obligations

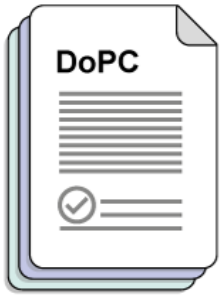
Intended use in masonry walls, colums and partitions for:			unprotected masonry	
Assessment and verification of constancy of performance:			System 2+	
Harmonised standard:			EN 771-1:2011+A1:2015	
Notified body/ies:			0749	
Declared performance/s of a U - masonry unit				
Dimensions and tolerances			T2	R2
Length:	mm	288	± 4	5
Width:	mm	65	± 2	2
Height:	mm	48	± 2	2
Tolerance:	category	T2		
Range:	category	R2		
Flatness of bed faces:	mm	NPD		
Plane parallelism:	mm	NPD		
Configuration				
Group of the unit:	-	1		
Volume of all formed voids:	%	NPD		
Volume of frogs:	%	NPD		
Density				
Gross dry density:	kg/m³	1650		
Net dry density:	kg/m³	2050		
Tolerance:	category / %	D1 / 10		
Compressive strength for Category I product				
Perpendicular to bedface:	N/mm²	20		
Perpendicular to header:	N/mm²	NPD		
Perpendicular to header 2:	N/mm²	NPD		
Bond strength:	N/mm²	NPD		
Thermal conductivity λ10,dry,unit:	W/(m·K)	0,690	*Determination method EN 1745:2012: S1*	
Water vapour permeability:	-	μ = 5/10	*Tabulated min. and max. value according EN 1745*	
Durability:	category	F2	*According EN 772-22*	
Water absorption:	%	13	*According EN 772-21*	
Initial rate of water absorption:	kg/(m²·min)	0,300-2	*According EN 772-11*	
Active soluble salt content:	category	S2	*According EN 772-5*	
Moisture movement:	mm/m	NPD		
Reaction to fire:	class	A1	*EN 13501-1*	
Dangerous substances:	-	NPD		



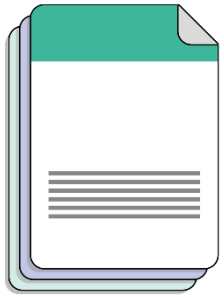
actual configuration may vary slightly

SAMPLE

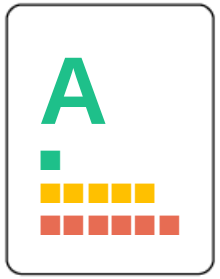
The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.



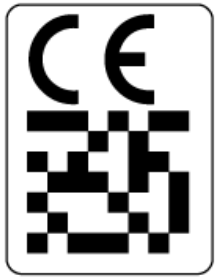
Declaration of performance and conformity



General product information, instructions for use and safety information



Label (when applicable)



Data carriers Key parts

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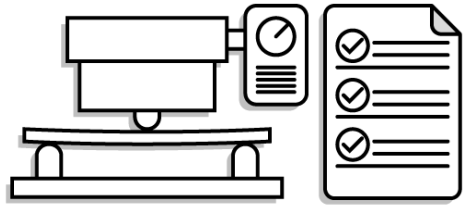
Declared performance



Essential characteristic	Units	Performance Value/class	Assessment method if not included in the harmonised standard
Compressive strength for Category I product			
Perpendicular to bedface:	N/mm²	**20**	
Perpendicular to header:	N/mm²	**NPD**	
Perpendicular to header 2:	N/mm²	**NPD**	
Bond strength:	N/mm²	**NPD**	
Thermal conductivity λ10,dry,unit:	W/(m·K)	**0,690**	*Determination method EN 1745:2012: S1*
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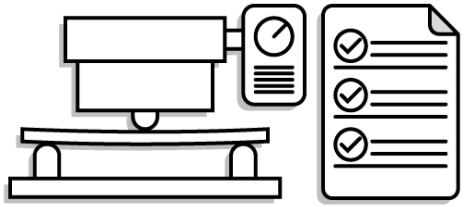
Water absorption:	%	**13**	*According EN 772-21*
Initial rate of water absorption:	kg/(m²·min)	**0,300-2**	*According EN 772-11*
Active soluble salt content:	category	**S2**	*According EN 772-5*
Moisture movement:	mm/m	**NPD**	
Reaction to fire:	class	**A1**	*EN 13501-1*

Declared performance



Essential characteristic	Units	Performance Value/class	Assessment method if not included in the harmonised standard
Compressive strength for Category I product			
Perpendicular to bedface:	N/mm²	**20**	
Perpendicular to header:	N/mm²	**NPD**	
Perpendicular to header 2:	N/mm²	**NPD**	

Manufacturer is liable if the product does not reach the declared performance

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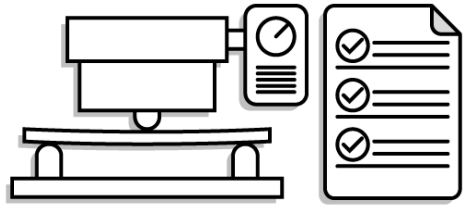
Declared performance



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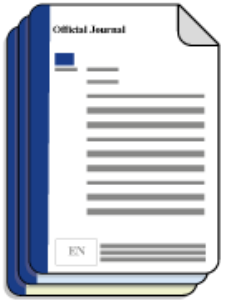
Compressive strength for Category I product			
Perpendicular to bedface:	N/mm²	**20**	
Perpendicular to header:	N/mm²	**NPD**	
Perpendicular to header 2:	N/mm²	**NPD**	

Declare essential characteristics is voluntary unless:

- Mandatory declaration is established →
- Threshold level is established →



Delegated act

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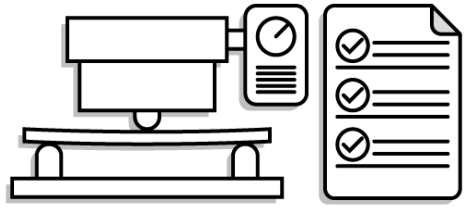
Declared performance



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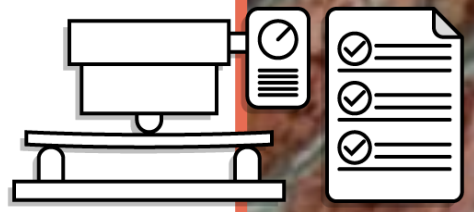
Minimum compressive strength could be subject to a threshold through a delegated act.

- All applications (all products placed on the EU market)
- Some applications (e.g., loadbearing walls)

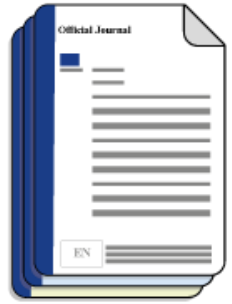
Declared performance



Essential characteristic	Units	Performance Value/class	Assessment method if not included in the harmonised standard
Durability:	category	**F2**	*According EN 772-22*

Declaration using values unless:

– Classification system is established →

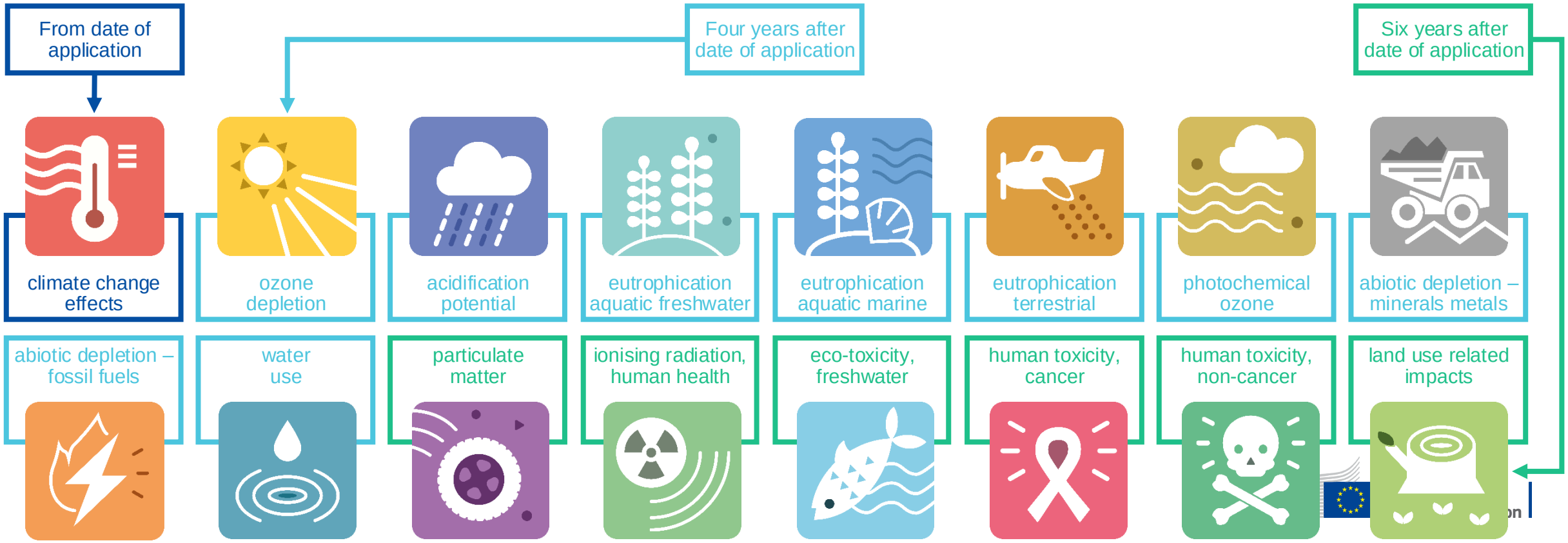


Delegated act

Class	Properties	Recommended use
F2	Frost resistant	suitable for use in normal building situations and exposure levels
F1	Moderately frost resistant	durable except where they remain saturated, and subject to freezing and thawing. Generally suitable for brickwork between DCP and eaves, F1 bricks should never be used below DCP, for plinths and projecting details, nor in landscaping. Use with caution, depending on level of exposure
F0	Not frost resistant	not suitable for external use

LCA environmental indicators

New CPR establishes by default, mandatory declaration of the following essential characteristics in three steps



Declaration of performance and conformity

New CPR establishes additional rules for manufacturers in relation to the DoPC

- Section on declared performance
- Section on fulfilment of product requirements - New
- Provided together with product information - Improved

Product requirements

- When a characteristic cannot be expressed as performance the new CPR offers the possibility to establish additionally requirements by delegated act
- Requirements apply to all products placed on the market
- Presumption of conformity standards can be requested to CEN/CENELEC, if needed

Product requirements

- A performance declaration combined with a mandatory threshold is better than establishing a requirement:
  - » Performance allows more ambitious requirements by Member States and manufacturers
  - » Performance allows a more detailed declaration instead of pass/fail

	Approach	Assessment method	Threshold	Declaration in the declaration of performance and conformity
Performance + threshold	Essential characteristic: Recycled content	Defined in a mandatory harmonised standard	EU level: 25%	Recycled content: 45%
Requirement	Minimum recycled content of the product	Defined in a voluntary harmonised standard	EU level: 25%	Fulfill minimum recycled content

Functionality

Safety

Environment

European Commission

Product requirements

Functionality

- use of specific materials which can be specified also in terms of their chemical composition
- specific dimensions and shapes of products or their components
- use of certain components which can be specified also in terms of materials, dimensions and shapes
- use of certain accessories and requirements for them
- ease of installation and deinstallation
- ease of maintenance or the lack of maintenance required for the expected life span
- characteristics of the product, including its cleanability, scratch resistance and break resistance, under usual operation conditions

Safety

- chemical risks due to leaking or leaching
- risk of unbalanced composition in terms of substances resulting in flawed, safety- relevant functioning of products
- mechanical risks
- mechanical failure
- physical failure
- risks of electric failure
- risks linked to electricity supply breakdown
- risks linked to unintended charge or discharge of electricity
- risks linked to software failure
- risks of software manipulation
- risks of incompatibility of substances or materials
- risks linked to the incompatibility of different items, at least one of them being a product
- risk of not performing as intended, where the performance is safety relevant
- risk of misunderstanding instructions for use in a field affecting health and safety
- risk of unintended inappropriate installation or use
- risk of intended inappropriate use

Environment

- maximising durability and reliability of the product or its components as expressed through a product's technical lifetime indication of real use information on the product, resistance to stress or ageing mechanisms and in terms of the expected average life span, the minimum life span under worst but still realistic conditions, and in terms of the minimum life span requirements and prevention of premature obsolescence
- minimising life-cycle greenhouse gas emissions
- maximising reused, recycled and by-product content
- selection of safe, sustainable-by-design, and environmentally benign substances
- energy use and energy efficiency
- resource efficiency
- modularity
- identifying which product or parts thereof and in what quantity can be reused after de-installation (reusability), and in what quantities
- upgradability
- ease of reparability during the expected life span, including compatibility with commonly available spare parts
- ease of maintenance and refurbishment during the expected life span
- recyclability and the capability to be remanufactured
- capability of different materials or substances to be separated and recovered during dismantling or recycling procedures
- sustainable sourcing
- minimising the product-to-packaging ratio
- amounts of waste generated, notably hazardous waste

Product information

- Products are accompanied by general product information, instructions for use and safety information
- CPR Annex applies directly and additional guidance about its implementation is provided in harmonised standards
- A delegated act may establish which information must be provided and how, if needed

Information aspects to be covered

Safety during transport, installation, deinstallation, maintenance, deconstruction and demolition

Compatibility and integration into systems or kits

Maintenance needs with a view to maintaining the performance of the product during its service life span

Safety during use

Training and other requirements necessarily to be fulfilled for safe use

Risk mitigation beyond the previous points

Recommendations for a product's end of life: reuse, remanufacture, recycle and safe deposit

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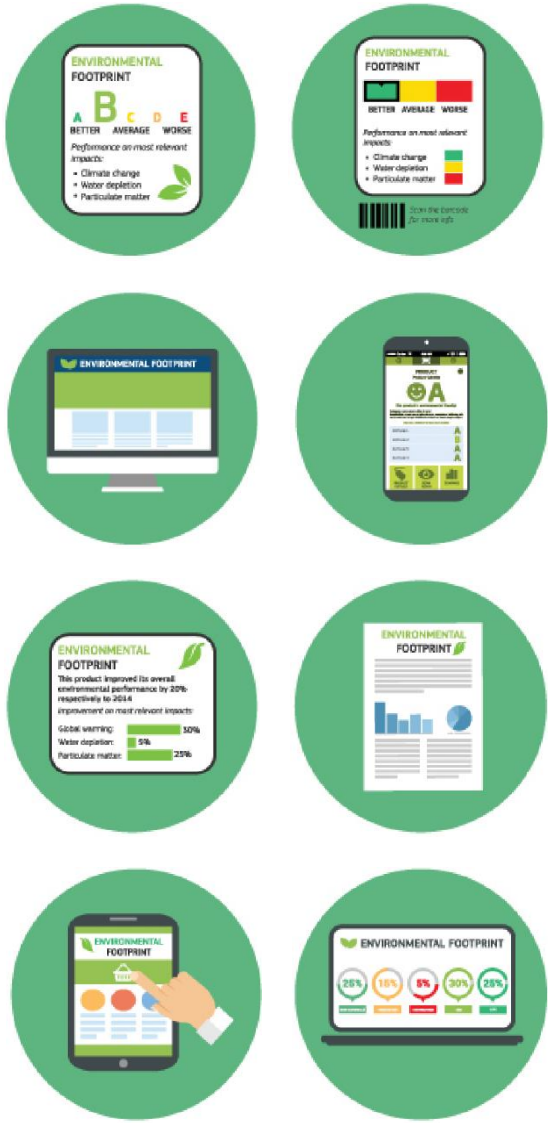
Environmental label



- Mandatory label can be established by delegated act
- Based on the environmental performance of the product
- Applicable if
  - » the product is typically chosen or purchased by consumers; and
  - » the product does not have a significantly different overall environmental performance over its life cycle depending on its installation.

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Other EU policy

CPR harmonisation does not restrict any other EU legislation. Other regulations apply in parallel:

- Machinery regulation
- Low voltage directive
- Electromagnetic compatibility directive
- REACH and CLP
- …

ESPR regulatory framework

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How CPR covers ESPR requirements?

Performance declaration

Product requirements

Product information

European Commission

Consequences of CPR and ESPR overlap

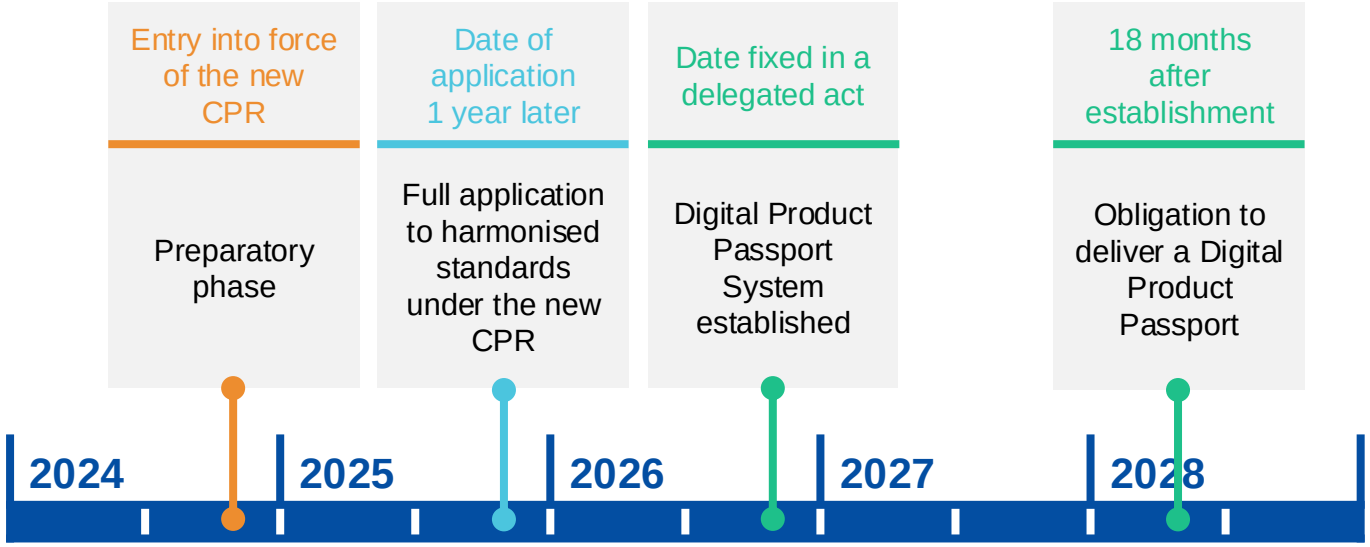
- All Ecodesign requirements apply to products
- Energy labelling also applies
- Assessment methods defined in mandatory standards, one test method per characteristic (CPR requirement)
- Obligation of CPR to cover global warming potential and other environmental indicators
- No practical problem if CPR is less strict than ESPR, as manufacturers must fulfil both

Recognition of obligations

The new CPR allows the possibility to adopt a delegated act to define conditions under which CPR obligations can be satisfied by the fulfilment of obligations under other Union law.

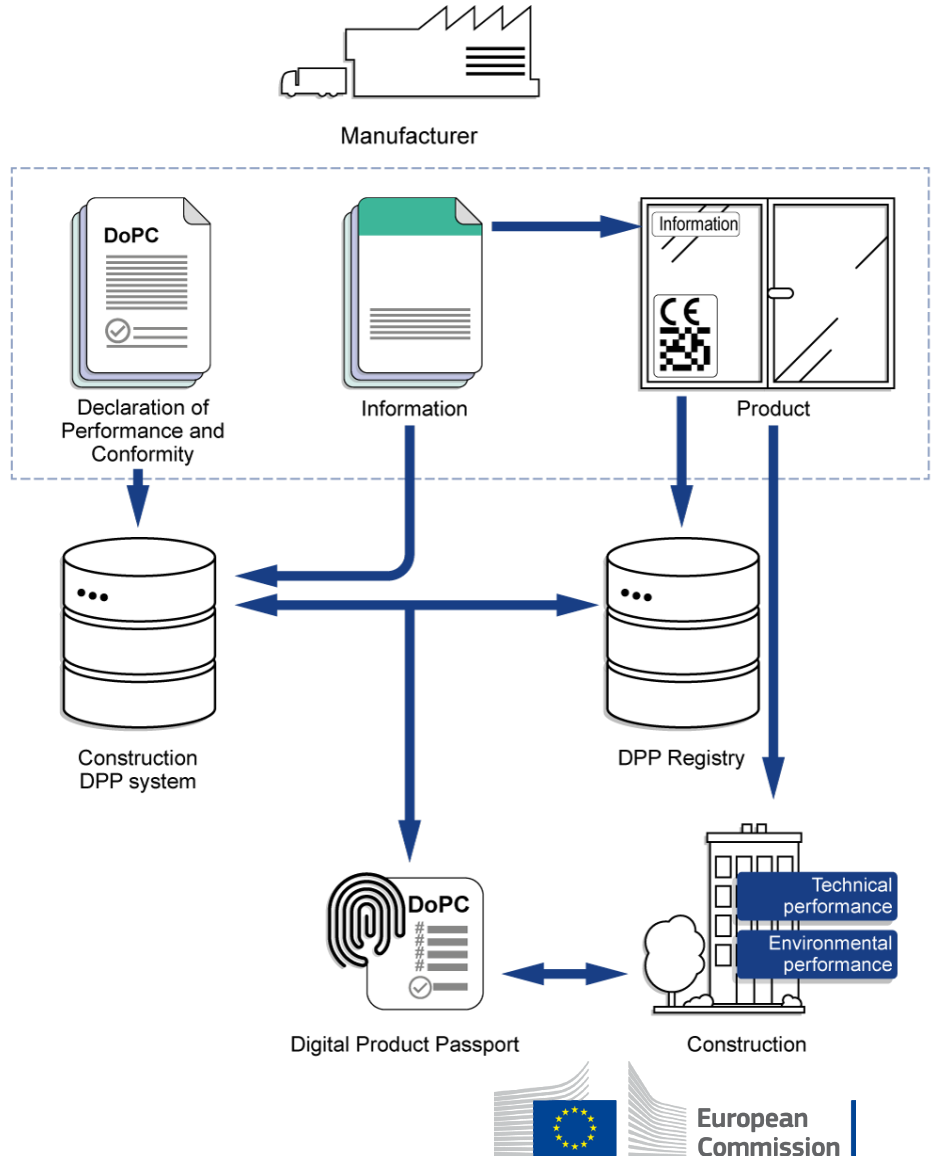
Possible if the other EU law provides a system compatible with the CPR and provides at least the same level of safety.

Digitalisation

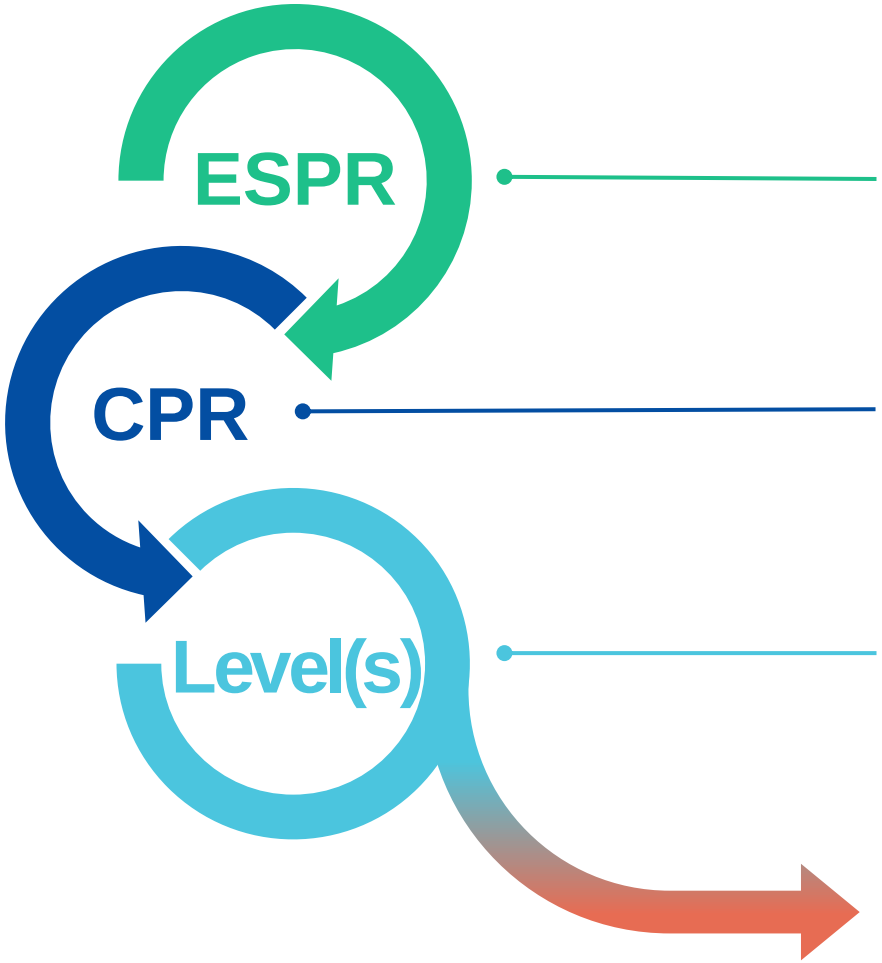


Information

based on open standards	structured
machine-readable	searchable
developed with an interoperable format	transferable through an open interoperable data exchange network without vender lock-in



EU Regulatory framework



Default approach

Ecodesign for Sustainable Products Regulation
Setting performance and information requirements for products placed on the Single Market

Construction Products Regulation
Delivery of environmental information from construction products and implementation of requirements

Level(s) methodology
Sustainability assessment of buildings

Taxonomy
Sustainable activities

EPBD
Sustainable buildings

EED
Public procurement of buildings

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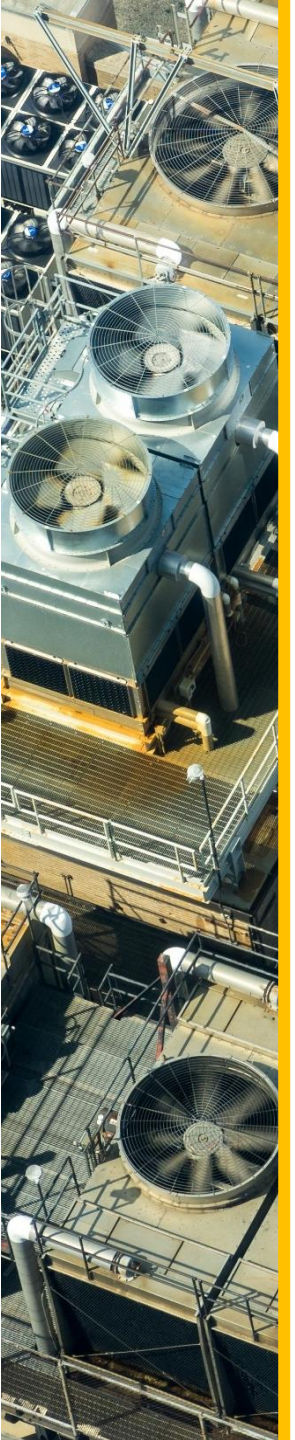
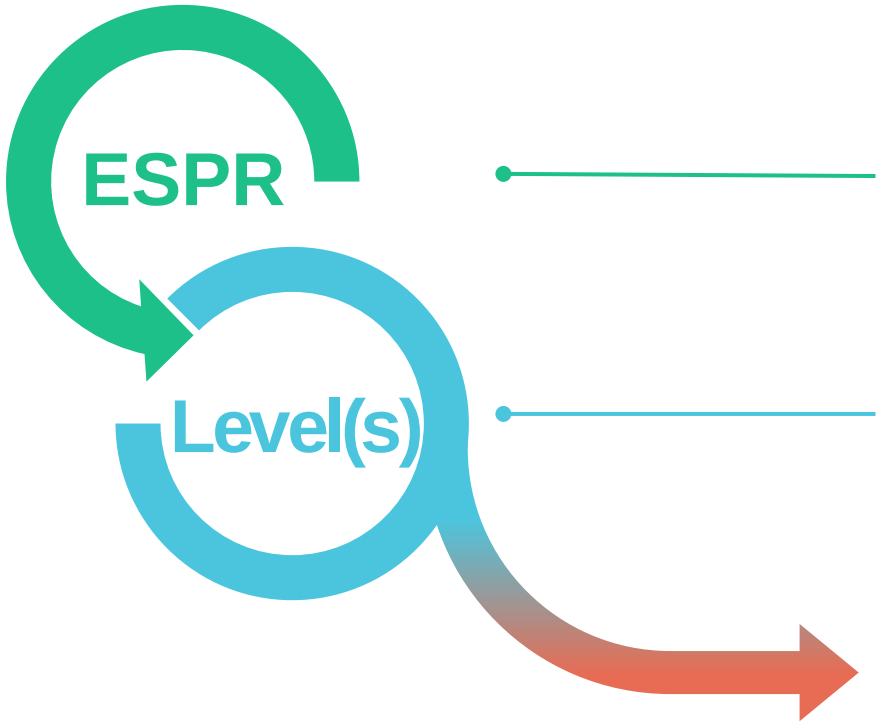


EU Regulatory framework

Energy related products



Ecodesign for Sustainable Products Regulation
Setting performance and information requirements for products placed on the Single Market

Level(s) methodology
Sustainability assessment of buildings

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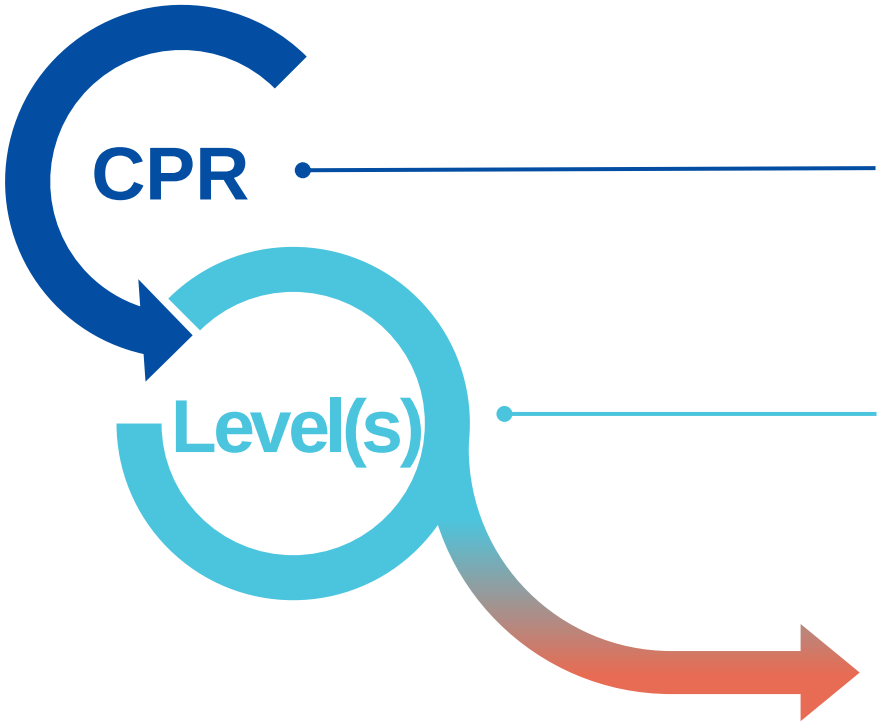
EU Regulatory framework

Other products



Construction Products Regulation
Delivery of environmental information from construction products and implementation of requirements

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European Commission

Calculation of life-cycle GWP of new buildings

Values	Numeric indicator for each life-cycle stage
Units	kg CO_2eq./m^2 of useful floor area
Reference study period	50 years
Modelling	EN 15978 and Annex III of the EPBD
Scope	Level(s) framework indicator 1.2.
Additional rules	Revision of Annex III by 31 December 2025
Other tools of methods	Allowed if they fulfil Level(s) applicable criteria
Data sources	CPR information when available

Conclusions

CPR and ESPR overlap is expected to be limited for end products

Energy related products will be regulated mainly by the ESPR

Non-energy related products will be regulated mainly by the CPR

ESPR information for intermediate products will be integrated in CPR assessment – coordination is required

Both regulations act as a safety net of each other

Burdens due to regulatory overlap to be reduced as much as possible

Thank you!

Sources of pictures: www.pixabay.com

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