



BIM IN EUROPE - 12/05/2016

THE PRODUCTINFOX PROJECT AND ITS R&D RESULTS

TEKNOLOGISK INSTITUTT AS

TI CERTIFISERING AS

CERTIFICATION SERVICES



- Certification of management systems - major provider of services with regards to certification of systems incl.:
 - ISO 9001: Quality management systems
 - ISO 14001: Environmental management system
 - EMAS
 - OHSAS 18001:2007 - Occupational Health and Safety Management Systems
- Certification of personnel
- Certification of enterprises
- CE-labelling of steel and aluminium components according to NS-EN 1090-1

PRODUCTXCHANGE - LEGISLATION

Legislation relevant with regards to chemicals and products in the construction and building industry:

- Construction Product Regulation (DoP)
- REACH (safety data sheets, registrations etc.)
- EU Legislations with regards to external environment
- EU Legislations with regards to working environment and workers safety
- EU Legislations with regards to products
- Harmonized standards



ProductXchange

TECHNICAL SPECIFICATION (CONT.)

- 47 Harmonized Standards and 6 ETAGs (European Technical Approval Guidelines) covering different types of construction products has been focused in the ProductInfoX project including:
 - 1. EN 13163 Factory made expanded polystyrene (EPS) products
 - 2. EN 13164 Factory made products of extruded polystyrene foam (XPS)
 - 3. EN 14351-1 Windows
 - 4. EN 13813 Cementitious screed
 - 5. EN 13162 Glass wool
 - 6. EN 14449 Laminated glass
 - 7. EN 15651-1 Sealants for facade elements
 - 8. EN 15651-2 Sealants for glazing
 - 9. EN 15651-3 Sealants for sanitary joints
 - 10. EN 15651-4 Sealants for pedestrian walkways
 - 11. EN 14592 Dowel-type fastener:
 - 12. EN 14566 Plasterboard staple

TECHNICAL SPECIFICATION (CONT.)

- 47 Harmonized Standards and 6 ETAGs (European Technical Approval Guidelines) covering different types of construction products has been focused in the ProductInfoX project including:
 13. EN 13967 Reinforced plastic and rubber damp proof sheet
 14. EN 13707 Reinforced bitumen sheets for roof waterproofing
 15. EN 13956 Plastic and rubber sheet for roof waterproofing
 16. EN 14080 Glued laminated timber
 17. EN 14081-1 Structural timber - Strength graded structural timber with rectangular cross section
 18. EN 13986 Wood-based panels
 19. EN 13830 curtain Wall kit
 20. EN 13964 suspended ceiling
 21. EN 14342 wood flooring
 22. EN 14041 resilient, textile and laminate floor coverings
 23. EN 12467 fibre-cement flat sheet

TECHNICAL SPECIFICATION (CONT.)

- 47 Harmonized Standards and 6 ETAGs (European Technical Approval Guidelines) covering different types of construction products has been focused in the ProductInfoX project including:
 24. EN 520 Gypsum plasterboards
 25. EN 1304 - Clay roofing tiles and fittings
 26. EN 998-2 Masonry mortar (factory made masonry mortar):
 27. EN 12004 Adhesives for tiles:
 28. EN 13252 geocell
 29. EN 771-3 - Aggregate concrete masonry units (dense and light-weight aggregates)
 30. EN 12446 - Chimneys - Components - Concrete outer wall elements
 31. EN 1057 - Copper tubes (seamless round copper tube)
 32. EN 13240 - Room heaters fired by solid fuel
 33. EN 1168 Hollow Core Slabs (pre-cast hollow core slab)
 34. EN 12566-1 concrete septic tank
 35. EN 12058 Slabs for floors and stairs - natural Stone slab

TECHNICAL SPECIFICATION (CONT.)

- 47 Harmonized Standards and 6 ETAGs (European Technical Approval Guidelines) covering different types of construction products has been focused in the ProductInfoX project including:
 36. EN 13859-2 - 2010 Flexible sheets for waterproofing Definitions and characteristics of underlays
 37. EN 14891 - 2012 Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives
 38. EN 14992 - Precast concrete products
 39. EN 14411 - Ceramic tiles
 40. EN 12620 - Aggregates for concrete
 41. EN 60598-1 - Luminaires
 42. Prefabricated bath room modules
 43. EN 378-1 - Refrigerating systems and heat pumps
 44. EN 1090-1 - Steel structures and aluminium structures
 45. EN 14063-1 - In-situ formed expanded clay lightweight aggregate products
 46. EN 997 - WC pans and WC suites with integral trap
 47. EN ISO 15875 - Plastics piping systems - PE-X

TECHNICAL SPECIFICATION (CONT.)

- 47 Harmonized Standards and 6 ETAGs (European Technical Approval Guidelines) covering different types of construction products has been focused in the ProductInfoX project including:
 48. ETAG 022 Part 1 - Liquid waterproofing membranes
 49. ETAG 022 Part 2 - Flexible sheets for use in wet room
 50. ETAG 022 Part 3 - Watertight boards for wet rooms - with surface treatment
 51. ETAG 007 - Timber building kits
 52. None/ETAG 008 - Railing
 53. ETAG 008 - Prefabricated Stairs

TECHNICAL SPECIFICATION (CONT.)

- The 47 Harmonized Standards and 6 ETAGs (European Technical Approval Guidelines) focused in the ProductInfoX project has been careful evaluated and the following main elements are identified:
 - Product type
 - Properties
 - Measures
 - Reference standards
 - Units
 - Technical specification
 - Values
 - Essential characteristics
 - Intended use
- The Harmonized Standards and ETAGs is unfortunately to a limited extent translated and available in the different languages focused

TECHNICAL SPECIFICATION (CONT.)

- The Harmonized Standards and ETAGs is unfortunately, to a limited extent, available in the different languages focused in the ProductInfoX project:
 - Norwegian
 - German
 - French
 - Danish
 - Finnish
 - Swedish
 - Italian
 - Polish
 - Bulgarian
 - Spanish
- Accordingly, the information in the 47 Harmonized Standards and 6 ETAGs of special focus in the ProductInfoX project is translated to the languages focused in the ProductInfoX project

TECHNICAL SPECIFICATION (CONT.)

- Status of translation of the 47 Harmonized standards and 6 ETAGs (European Technical Approval Guidelines) focused in the ProductInfoX project:

	Bulk 1	Bulk 2	Bulk 3	Bulk 4	Bulk 5	Bulk 6
Norwegian	ok	ok	ok	ok	ok	ok
German	ok	ok	ok	ok	ok	ok
French	ok	ok	ok	ok	ok	ok
Danish	ok	ok	ok	ok	ok	ok
Finnish	ok	ok	ok	ok	ok	ok
Swedish	ok	ok	ok	ok	ok	ok
Italian	ok	ok	ok	in progress	in progress	in progress
Polish	ok	ok	ok	ok	ok	ok
Bulgarian	ok	ok	ok	ok	ok	ok
Spanish	ok	ok	ok	ok	in progress	in progress

TECHNICAL SPECIFICATION (CONT.)

- Results from the translations are included and made available in the Building Smart Data Dictionary (bsDD)
- Through the ProductInfoX project the content development in bsDD was greatly improved in 2014 - 2016 by adding the IFC4 entities and a significant number of product types together with the related product information.

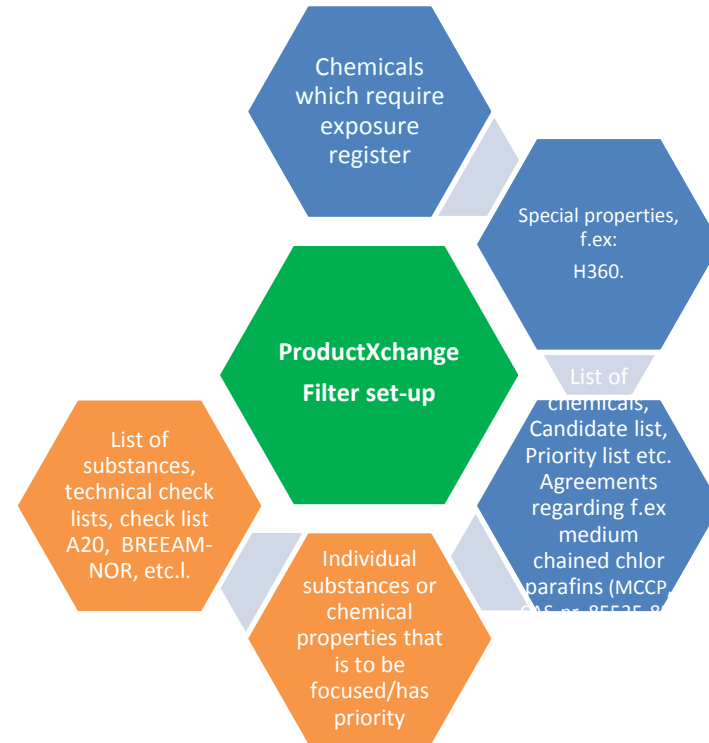


IDENTIFICATION OF ILLEGAL AND UNWANTED SUBSTANCES AND PRODUCTS - «FILTER»

Substances and lists of substances with special properties

National filter established and


User-defined filter - to be set up and established by the enterprise/user



SIMPLIFIED SAFETY DATA SHEET

- Does address the requirement for information/training to employees
- Content:
 - Labelling
 - First aid measures
 - Exposure control
 - Fire protection
 - Measures with regards to spill/emissions
 - Handling/storage
 - Waste handling

Use the information from the Safety Data Sheet

Brann – 110	Politi – 112	Ambulans – 113	Giftinformasjonen – 22 59 13 00	QR-kode: 
Forenklet SDS for Bera-fix Loddelakk, Art.nr. 2982 12				SDS
Materiellnr: 298212 MSDS-identcode : 10041295				
Bruksområde/produkttype: Loddelakker		Revisjonsdato: 12.10.2011		
Revisjonsnr:		2.0		
Faremerking				
Farepiktogrammer/-symboler og sikkerhetskiltning				
		NB: Ingen sikkerhetsskilt angitt - se Eksponeringskontroll.		
Giftig	Miljoskadelig			
Farlige komponenter				
Lead	CAS-nr. 7439-92-1	>= 55 - < 60 %		
sinkklorid	CAS-nr. 7646-85-7	>= 20 - < 25 %		
tin	CAS-nr. 7440-31-5	>= 55 - < 60 %		
Faremerking R20/22 Farlig ved innånding og svelging. R33 Kan opphøpes i kroppen ved gjentatt bruk. R34 Etsende. R50/53 Meget giftig for vannlevende organismer; kan forårsake uønskede langtidsvirkninger i vannmiljøet. R61 Kan gi fosterskader. R62 Mulig fare for skade på forplantningsevnen.				
S20 Får man stoffet i øynene; skyll straks grundig med store mengder vann og kontakt lege. S35 Produktet og emballasjen skal uskadeliggjøres på en sikker måte. S36/37/39 Bruk egnede verneklær, vernehansker og vernebriller/ansiktsskjerm. S45 Ved uhell eller illebefinnende er omgående legebehandling nødvendig, vis etiketten om mulig. S53 Unngå direkte kontakt - innhet spesielle opplysninger for bruk. S57 Oppbevares/håndteres slik at forurensning i miljøet unngås. (Sorg for forsvarlig emballering for å forebygge miljøforurensning).				
Forstehjelpstiltak				
Generelt	Ved uhell eller illebefinnende er omgående legebehandling nødvendig, (vis etiketten hvis mulig). Når symptomer vedvarer eller ved alle tilfeller, søk råd fra lege. Forstehjelpsmåttak trengs å beskytte seg selv. Flytt bort fra farezone. Gi aldri noe gjennom munnen til en bevisstløs person. Ta øyeblikkelig avforurenset tøy og sko. Det smeltede produktet kan forårsake alvorlige brannskader.			
Etter innånding	Ved innånding, fjern personen til frisk luft. Tilkaill lege øyeblikkelig. Hold pasienten varm og la vedkommende hvile. Hvis den forulykkede ikke puster, gi kunstig åndedrett. Hvis den forulykkede har vondt for å puste, gi oksygen. Kontakt lege straks.			
Etter hudkontakt	Omgående medisinsk behandling er nødvendig da ubehandlede hudlesjoner gir sår som er langsomme og vanskelige å få til å gro. Vask av med såpe og vann. IKKE bruk oppløsningsmidler eller tynningsmidler. Skyll huden med kaldt vann snarest mulig etter kontakt med smeltet materiale.			
Etter kontakt med øynene	Tilkaill lege øyeblikkelig. Beskytt uskadet øye. Små mengder splasket i øyne kan forårsake irreversible skade av vev og blindhet. Hvis det er lett å gjøre, fjern kontaktlinser hvis disse brukes. Får man stoffet i øynene, skyll straks grundig med store mengder vann og kontakt lege.			
Etter svelging	Pasienten bringes omgående til sykehus. Når en person som ligger på rygg brækker seg, snu ham over på siden.			
Akutte symptomer og effekter	Indikasjon av øyeblikkelig legeoppmerksomhet og spesiell nødvendig behandling : ingen data tilgjengelig.			
Øyeblikkelig legehjelp eller spesiell behandling	Ingen data tilgjengelig.			
Eksponeringskontroll				
Tiltaks- og grenseverdier	Lead	CAS-nr. 7439-92-1	0,05 mg/m ³	R
	sinkklorid	CAS-nr. 7646-85-7	1 mg/m ³	
	tin	CAS-nr. 7440-31-5	2 mg/m ³	
Tiltak for å unngå eksponering	Tekniske tiltak Sørg for tilstrekkelig luftgjennomgang og/eller avtrekk i arbeidsrom. Svært effektiv eksosventilasjon			
Åndedrettsvern	Hvis arbeidere måter konsentrasjoner over eksponeringsgrensene må de benytte egnet godkjent åndedrettsvern. I tilfelle dannelse av damp, bruk pusteapparat med godkjent filter, respirator med ABEK filter			
Øye og ansiktssvern	Bruk vernebriller/ansiktsskjerm. Påse at øyenskyllestasjoner og sikkerhetsdusjer befinner seg i nærheten av arbeidsstasjonstedet.			
Håndvern	Nitrilgummi Velg hansker som beskytter mot kjemikalier med egenskaper som egner seg for konsentrasjonen og mengden av farlige stoffer på den spesifikke arbeidsplassen. Det anbefales å konsultere hanskeprodusenten for å avklare om de ovennevnte hanskene er kjemikaliebestandige nok.			
Hudvern	Bruk egnede verneklær. Velg kroppsskytelse i henhold til mengden og konsentrasjonen av farlige stoffer på arbeidststedet.			

PRODUCTXCHANGE - CONTENT

- Register/Archive including important information for the Building and Construction Sector:
 - Declaration of Performances
 - Additional properties and technical information according to Harmonized Standards relevant for Construction Products
 - Assembly instructions
 - Technical data sheets/documentation
 - Environmental documentation (EPD etc.)
 - Reference to technical/harmonized standards
 - Safety Data Sheet
 - Simplified safety data sheet
 - Positive environmental labelling (EU flower, Nordic Swan etc.)

PRODUCTXCHANGE - FUNCTIONALITIES

- Central functionalities with regards to quality, health, environment and safety in the the Building and Construction Sector including:
 - Complete Register/Archive easily available
 - Identification of illegal and unwanted substances and products
 - Assistance in decisions
 - Risk Assessment/Substitution
 - Ensure information to decision makers and users
 - Communication and exchange of experience internally in the enterprise
 - External communication between supplier and user and within the value chain

PRODUCTXCHANGE - DOCUMENTATION

- Document measures and effect of measures with regards to quality, health, environment and safety in the Building and Construction Sector including:
 - Evaluation of compliance - identification of non-compliance with important legislation (documents, filter, exposure register, risk assessment, substitution assessment etc.)
 - Implementation of legislation and provisions in standards (ref. different functionalities in ProductXchange)
 - Continuous improvements (analyses of development - f.ex status regarding risk assessment, missing documents, status regarding “unwanted” products etc.)

ProductXchange is an efficient tool in the systematic quality, health, environment and safety work

PRODUCTXCHANGE - RELEVANT STANDARDS

Standards relevant with regards to chemicals and products in the construction and building industry:

- Harmonized Standards - Construction products
- ISO 9001:2008 - Quality Management System
- ISO 14001:2004 - Environmental Management System
- EMAS
- OHSAS 18001:2007 - Management system for occupational health and safety



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PRODUCTXCHANGE - RELATION TO NEW VERSION OF STANDARDS

- ISO 9001 and ISO 14001 - new edition in 2015
- OHSAS 18001 issued as ISO 45001 in 2016.
- Important revisions /focus in the new edition of the standards:
 - New structure, identical for all the different standards
 - Common terms, definitions, text block and other system definitions
 - Increased focus in implementation and achievements
 - Mandatory procedures and registrations are replaced by documented information (independent of platform) to be updated.
 - Risk based approach, increased focus on risk management and increased efficiency in systematic quality, health, environment and safety work
 - Communication is expanded to include external actors (value chain/third party)

ProductXchange does include this revisions in standards

PRODUCTXCHANGE - SUMMARY OF KEY R&D

- Scientific understanding and identification of key operational parameters
- Technical specification of construction product types RTD
- System specification
- Software/IT tool developed
- User tests, validation and assessment
- Demonstration of pilot system

Thanks for your attention

Morten Berntsen
Teknologisk Institutt as
morten.berntsen@teknologisk.no