

Analysis of causes of the end of service life of a spray polyurethane foam and polyurea roof

Kalamees, Targo; Ilomets, Simo; Põldaru, Mattias; Klõšeiko, Paul; Kallavus, Urve; Rosenberg, Margit; Öiger, Karl E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 / art. 15002, 6 p. : ill <https://doi.org/10.1051/e3sconf/202017215002> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Analysis of energy use in detached houses to determine energy performance requirements in Estonia

Ilomets, Simo; Kalamees, Targo; Kõiv, Teet-Andrus Proceedings of Clima2010 10th Rehva World Congress "Sustainable Energy Use in Buildings" : Antalya, 9-12.05.2010 2010 / [8] p

The analysis of indoor hygrothermal loads based on measurements in multi-storey wooden apartment buildings

Kalamees, Targo; Arumägi, Endrik; Thalfeldt, Martin; Ilomets, Simo; Klõšeiko, Paul; Alev, Üllar Proceedings of the 5th International Building Physics Conference (IBPC) : Kyoto, Japan, May 28-31, 2012 2012 / p. 225-232 : ill

Building carbon footprint comparison between building permit and as-built with circular material usage

Kertsmik, Kadri-Ann; Talvik, Martin; Lylykangas, Kimmo Sakari; Ilomets, Simo; Kalamees, Targo ICEARC'23 : The 3rd International Civil Engineering & Architecture Conference, Trabzon, Türkiye, 12-14 October 2023 : Proceedings ; Vol. 2: Architecture 2023 / p. 392-399 https://icearc2023.glpmanager.com/documents/ICEARC'23_Proceedings_Architecture.pdf

Case-study analysis of concrete large-panel apartment building at pre- and post low-budget energy-renovation

Kuusk, Kalle; Kalamees, Targo; Link, Siim; Ilomets, Simo; Mikola, Alo Journal of civil engineering and management 2017 / p. 67-75 : ill <https://doi.org/10.3846/13923730.2014.975741> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Case-study analysis on hygrothermal performance of ETICS on concrete wall after low-budget energy-renovation

Ilomets, Simo; Kalamees, Targo Proceedings of XII International Conference on Performance of Exterior Envelopes of Whole Buildings 2013 / [15] p. : ill

Climate change and energy demand for heating and cooling of buildings in Finland

Jylhä, Kirsti; Tietäväinen, Hanna; Ruosteenoja, Kimmo; Kalamees, Targo; Jokisalo, Juha; Ilomets, Simo; Hyvönen, Reijo; Saku, Seppo European Geosciences Union General Assembly, Vienna, Austria, 03–08 April, 2011 2011

Comparison of thermal performance of mineral wool and reflective insulation on internally insulated log wall

Alev, Üllar; Kalamees, Targo; Arumägi, Endrik; Ilomets, Simo Proceedings of Healthy Buildings 2012 : Brisbane, Australia 8-12 July 2012 2012 / [6] p. : ill

Construction process and measuring initial dryout of PCM mortar in energy activated ETICS façade

Talvik, Martin; Ilomets, Simo; Klõšeiko, Paul; Kalamees, Targo; Heim, Dariusz Thermal performance of the exterior envelopes of whole buildings : Buildings XV Conference 2022 / p. 757-764 <https://www.scopus.com/record/display.uri?eid=2-s2.0-85163701291&origin=inward&txId=c83aa5cf70cab7322515343c3d634b25>

Development of weighting factors for climate variables for selecting the energy reference year according to the EN ISO 15927-4 standard

Kalamees, Targo; Jylhä, Kirsti; Tietäväinen, Hanna; Jokisalo, Juha; Ilomets, Simo; Hyvönen, Reijo; Saku, Seppo Energy and buildings 2012 / p. 53-60 <https://www.sciencedirect.com/science/article/abs/pii/S0378778811005779>

Durability of concrete and brick facades of apartment buildings built between 1960-90 in Estonia

Ilomets, Simo; Kalamees, Targo; Agasild, Tõnis; Öiger, Karl; Raado, Lembi-Merike XII International Conference on Durability of Building Materials and Components (XII DBMC), Porto, Portugal, April 12th-15th, 2011 2011 / p. 1171-1178 : ill <https://www.irbnet.de/daten/iconda/CIB22471.pdf>

Eesti eluasemefondi ehitustehniline seisukord - ajavahemikul 1990-2010 kasutusele võetud korterelamud : uuringu lõpparuanne

Kalamees, Targo; Ilomets, Simo; Liias, Roode; Raado, Lembi-Merike; Kuusk, Kalle; Maivel, Mikk; Ründva, Marko; Klõšeiko, Paul; Liho, Eva; Paap, Leena; Mikola, Alo; Seinre, Erkki; Lill, Irene; Soekov, Erki; Paadam, Katrin; Ojamäe, Liis; Kallavus, Urve; Mikli, Lauri; Kõiv, Teet-Andrus 2012 http://www.ester.ee/record=b2878060*est

Eesti eluasemefondi puitkorterelamute ehitustehniline seisukord ning prognoositav eluiga : uuringu lõpparuanne

Kalamees, Targo; Arumägi, Endrik; Just, Alar; Kallavus, Urve; Mikli, Lauri; Thalfeldt, Marko; Klõšeiko, Paul; Agasild, Tõnis; Liho, Eva; Haug, Priit; Tuurmann, Kristo; Liias, Roode; Öiger, Karl; Langepröön, Priit; Orro, Oliver; Välja, Leele; Suits, Maris; Kõdi, Georg; Ilomets, Simo; Alev, Üllar; Kurik, Lembit 2011 http://www.ester.ee/record=b2720728*est

Eesti eluasemefondi telliskorterelamute ehitustehniline seisukord ning prognoositav eluiga : uuringu lõpparuanne

Kalamees, Targo; Kõiv, Teet-Andrus; Liias, Roode; Öiger, Karl; Kallavus, Urve; Mikli, Lauri; Ilomets, Simo; Kuusk, Kalle; Maivel, Mikk; Mikola, Alo; Klõšeiko, Paul; Agasild, Tõnis; Arumägi, Endrik; Liho, Eva; Ojang, Tanel; Tuisk, Tanel; Raado, Lembi-Merike; Jõesaar, Tõnu 2010 http://www.ester.ee/record=b2665958*est

The effect of temperature, humidity and mechanical properties on crack formation on external thin plasters of ETICS
Volkova, Kristina; Põldaru, Mattias; Ilomets, Simo; Kalamees, Targo; Talvik, Martin; Heim, Dariusz Journal of physics : conference series 2021 / art. 012025, 8 p. : ill <https://doi.org/10.1088/1742-6596/2069/1/012025> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Ehitiste niiskusturvalisuse juhend : RIL 107-2022

2023 https://www.ester.ee/record=b5645584*est

Ehituse teekaart 2040 [Võrguväljaanne]

Freimann, Maria; **Ilomets, Simo;** Karafin, Miina; **Kurnitski, Jarek** 2023 https://rohetiiger.ee/wp-content/uploads/2023/04/EHITUSE-TEEKAART-2040-v1.pdf?fbclid=IwAR1_ljIRZmtPtKibMUwLul_ru7btzHhmt2h2qceafhQJ6SXQtAgnPcXJvWs

Ehitusteadlased selgitavad : miks me kannatame siseruumides liiga kuiva õhu käes?

Nõges, Krõõt Ehitaja 2020 / lk. 45-46 http://www.ester.ee/record=b1072123*est

Ehitusteadlased selgitavad, miks on talvel siseruumides liiga kuiv õhk [Võrguväljaanne]

novaator.err.ee 2020 / fot [Ehitusteadlased selgitavad, miks on talvel siseruumides liiga kuiv õhk](#)

Energy performance of ETICS integrated with a flexible photovoltaic panel

Heim, Dariusz; Wieprzowicz, Anna; Knera, Dominika; **Ilomets, Simo; Kalamees, Targo;** Spitalsky, Zdeno Building simulation conference proceedings 2022 / p. 64-71 <https://doi.org/10.26868/25222708.2021.30194>

European roadmap for the En-ActivETICS advancement and potential of the PV/PCM unventilated wall system application

Heim, Dariusz; **Talvik, Martin;** Wieprzkowicz, Anna; **Ilomets, Simo;** Knera, Dominika; **Kalamees, Targo;** Czarny, Dariusz Energy and buildings 2023 / art. 113207 <https://doi.org/10.1016/j.enbuild.2023.113207> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evaluation of the criticality of thermal bridges

Ilomets, Simo; Kalamees, Targo Journal of building pathology and rehabilitation 2016 / art. 11, p. 1-13 : ill <http://dx.doi.org/10.1007/s41024-016-0005-6>

Evaluation of the thermal bridges of prefabricated concrete large-panel and brick apartment buildings in Estonia

Ilomets, Simo; Kalamees, Targo; Paap, Leena Proceedings of the 9th Nordic Symposium on Building Physics (NSB 2011), 29 May- 2 June 2011, Tampere, Finland. Vol. 3 2011 / p. 943-950 : ill

Experimental study on hygrothermal performance and durability of sandwich wall panels made of fiber reinforced AAC and PU foam insulation

Klõšeiko, Paul; Talvik, Martin; Kaljuvee, Kaire; Tuisk, Tanel; Ilomets, Simo; Kalamees, Targo Multiphysics and Multiscale Building Physics: Proceedings of the 9th International Building Physics Conference (IBPC 2024) ; Volume 3: Building Systems and HVAC Technologies 2025 https://doi.org/10.1007/978-981-97-8313-7_42

Failure analysis of a spray polyurethane foam roofing system

Kalamees, Targo; Põldaru, Mattias; Ilomets, Simo; Klõšeiko, Paul; Kallavus, Urve; Rosenberg, Margit; Öiger, Karl Journal of building engineering 2020 / art. 101752, 9 p. : ill <https://doi.org/10.1016/j.job.2020.101752> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Field study of hygrothermal performance of log wall with internal thermal insulation

Arumägi, Endrik; Ilomets, Simo; Kalamees, Targo; Tuisk, Tanel XII International Conference on Durability of Building Materials and Components (XII DBMC), Porto, Portugal, April 12th-15th, 2011 2011 / p. 811-819 : ill <https://www.irbnet.de/daten/iconda/CIB22427.pdf>

Hygrothermal performance of thick PCM mortar behind PV panels in energy-activated ETICS facades

Talvik, Martin; Ilomets, Simo; Klõšeiko, Paul; Kalamees, Targo; Põldaru, Mattias; Heim, Dariusz Buildings 2023 / art. 1572 <https://doi.org/10.3390/buildings13061572> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Impact of ETICS on corrosion propagation of concrete facade

Ilomets, Simo; Kalamees, Targo; Lahdensivu, Jukka; **Klõšeiko, Paul** Energy procedia 2016 / p. 67-76 : ill <https://doi.org/10.1016/j.egypro.2016.09.101> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Impact of linear thermal bridges on thermal transmittance of renovated apartment buildings

Ilomets, Simo; Kuusk, Kalle; Paap, Leena; Arumägi, Endrik; Kalamees, Targo Journal of civil engineering and management 2017 / p. 96-104 : ill <https://doi.org/10.3846/13923730.2014.976259> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Indoor climate loads for dwellings in different cold climates to assess hygrothermal performance of building envelopes

Ilomets, Simo; Kalamees, Targo; Tariku, Fitsum Canadian journal of civil engineering 2019 / p. 963-968 <https://doi.org/10.1139/cjce->

Indoor climate loads to assess hygrothermal performance of building envelope [Online resource]

Ilomets, Simo; Kalamees, Targo Durability and Climate Change : Changing Climatic loads as may affect the Durability of Building Materials, Components and Assemblies : proceedings of the CIB / NRC Symposium : National Research Council Canada, Construction Research Center, Ottawa, Canada, 21 September, 2018 2018 / p. 9-10 : ill
https://site.cibworld.nl/dl/publications/W080_pub414.pdf

Indoor hygrothermal conditions in Estonian old multi-storey brick apartment buildings

Kalamees, Targo; Ilomets, Simo; Arumägi, Endrik; Alev, Üllar; Kõiv, Teet-Andrus; Mikola, Alo; Kuusk, Kalle; Maivel, Mikk The 12th International Conference on Indoor Air Quality and Climate, June 5-10, 2011, Austin, Texas, USA 2011 / [6] p

Indoor hygrothermal loads for the deterministic and stochastic design of the building envelope for dwellings in cold climates

Ilomets, Simo; Kalamees, Targo; Vinha, Juha Journal of building physics 2018 / p. 547-577 : ill
<https://doi.org/10.1177/1744259117718442> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Indoor Overheating Risks of Pv-ETics and Dark-Coloured Facades : Experimental and Simulation-Based Assessment

Talvik, Martin; Ilomets, Simo; Kalamees, Targo SSRN 2025 / 16 p <https://doi.org/10.2139/ssrn.5264960>
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5264960

Indoor temperature and humidity conditions in Estonian old multi-storey apartment buildings composed of prefabricated concrete elements

Kalamees, Targo; Kõiv, Teet-Andrus; Arumägi, Endrik; Ilomets, Simo Proceedings of Clima2010 10th Rehva World Congress "Sustainable Energy Use in Buildings" : Antalya, 9-12.05.2010 2010 / [8] p

Indoor temperature and humidity conditions in modern Estonian apartment buildings

Kalamees, Targo; Ilomets, Simo; Kuusk, Kalle; Paap, Leena Proceedings of CLIMA 2013 : 11th REHVA World Congress and the 8th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings, Prague 16th-19th June, 2013 2013 / [10] p. : ill

Maaelamute sisekliima, ehitusfüüsika ja energiasääst I : uuringu I etapi lõpparuanne

Kalamees, Targo; Alev, Üllar; Arumägi, Endrik; Ilomets, Simo; Just, Alar; Kallavus, Urve 2011
http://www.ester.ee/record=b2665966*est

Measured hygrothermal performance of energy activated facade in cold climate

Talvik, Martin; Kalamees, Targo; Ilomets, Simo Journal of building physics 2025 / p. 1-27 <https://doi.org/10.1177/174425912413124>

A method to develop energy activated ETICS

Ilomets, Simo; Heim, Dariusz; Chodak, Ivan; Czarny, Dariusz; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 21006, 8 p. : ill
<https://doi.org/10.1051/e3sconf/202017221006> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Miks neid koledaid paneelmaju juba ei lammutata

Martin, Anni; Ilomets, Simo Maja : Eesti arhitektuuri ajakiri = Estonian architectural review 2023 / lk. 71-81 <https://ajakirimaja.ee/maja-kevad-2023-moratoorium/> https://www.ester.ee/record=b1072550*est

Milline on Mustamäe tervis? : [noorteadlaste konkursi Teadus kolme minutiga ettekanne]

Ilomets, Simo Teadus kolme minutiga : 2017-2019 2019 / lk. 80-83 : portr., ill https://www.ester.ee/record=b5245642*est

On site measurement and hygrothermal modelling of degraded ETICS facade with EPS and mineral wool fire breaks

Talvik, Martin; Klõšeiko, Paul; Kalamees, Targo; Liisma, Eneli; Ilomets, Simo Journal of Physics: Conference Series 2023 / 8 p
<https://doi.org/10.1088/1742-6596/2654/1/012124> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Performance testing of frost damage model by hygrothermal simulation

Ilomets, Simo; Kalamees, Targo; Raado, Lembi-Merike Proceedings of the 5th International Building Physics Conference (IBPC) : Kyoto, Japan, May 28-31, 2012 2012 / p. 73-80 : ill

Principles to select new test reference year assessing the annual energy for heating and cooling of buildings in Finland

Kalamees, Targo; Jylhä, Kirsti; Tietäväinen, Hanna; Jokisalo, Juha; Ilomets, Simo; Ruosteenoja, Kimmo; Hyvönen, Reijo; Saku, Seppo; Hutila, A. The 12th International Conference on Air Distribution in Rooms, June 19-22, 2011, Trondheim, Norway 2011 / [8] p
https://www.academia.edu/72130372/Principles_to_select_new_test_reference_year_assessing_the_annual_energy_for_heating_and_cooling_of_buildings_in_Finland

Renovation need and performance of envelopes of concrete apartment buildings in Estonia = Eesti raudbetoon-suurpaneelilamute piirdetarindite renoveerimisvajadus ja toimivus

Ilomets, Simo 2017 <https://digi.lib.ttu.ee/i/?7670> https://www.ester.ee/record=b4674186*est

Renovation vs. demolition of an old apartment building : energy use, economic and environmental analysis

Kuusk, Kalle; Ilomets, Simo; Kalamees, Targo; Tuudak, Sten; Luman, Andre NSB 2014 : 10th Nordic Symposium on Building Physics, 15-19 June 2014, Lund, Sweden : full papers 2014 / p. 1213-1220 : ill

Renoveerid kodu? Tehnikaülikooli teadur selgitab, kuidas ja millest alustada [Võrguväljaanne]

Kostap, Kristina postimees.ee 2022 [Renoveerid kodu? Tehnikaülikooli teadur selgitab, kuidas ja millest alustada](#)

Research demand of old apartment buildings in Estonia

Kalamees, Targo; Ilomets, Simo; Arumägi, Endrik; Kuusk, Kalle; Liias, Roode; Kõiv, Teet-Andrus; Õiger, Karl IEA Annex 55 (RAP-RETRO) : working meeting : Holzkirchen, Germany, 15-16 April, 2010 2010 / [8] p

Rheology, strength, and durability of concrete and mortar made of recycled calcium silicate masonry

Tuisk, Tanel; Ilomets, Simo; Hain, Tiina; Kalbus, Joosep; Kalamees, Targo Materials 2024 / art. 2790

<https://doi.org/10.3390/ma17122790> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ringrenoveerimise projekt tõi Tartusse ehitusmaterjalide taaskasutuspanga = В Тарту появился банк по переработке строительных материалов

Elamu 2024 / lk. 14-15 https://www.ester.ee/record=b1072137*est

Simo Ilomets ehitussektori rohepöördest: peaksime liikuma ringse materjalikasutuse suunas ja arendama nii rohe- kui digioskusi

Ilomets, Simo ehitusleht.ee 2025 <https://ehitusleht.ee/simo-ilomets-ehitussektori-rohepoordest-peakside-liikuma-ringse-materjalikasutuse-suunas-ja-arendama-nii-rohe-kui-digioskusi/>

Simo Ilomets: renoveerida tuleks üks kord, korraga ja õigesti

Ilomets, Simo err.ee 2024 [Simo Ilomets: renoveerida tuleks üks kord, korraga ja õigesti](#)

Tallinna linnahallitusest uue mõtteviisini : saatuse selgumiseni võiks Linnahalli kasutada varemepargina

Tamm, A. ekspress.ee 2024 [Tallinna linnahallitusest uue mõtteviisini: saatuse selgumiseni võiks Linnahalli kasutada varemepargina](#)

Taltech : hoonete renoveerimise vajadus kasvab hüppeliselt

Ilomets, Simo Ehitaja 2022 / lk. 38-39 https://www.ester.ee/record=b1072123*est https://artiklid.elnet.ee/record=b2900831*est

Taltech'i insener taaskasutusest: kusagilt tuleb lihtsalt pihta hakata

Vilk, Urve ehitusuudised.ee 2024 [Taltech'i insener taaskasutusest: kusagilt tuleb lihtsalt pihta hakata](#)

TalTechi vanemlektor: uute hoonete asemel peaksime väärtustama olemasolevaid

Rebane, Karmen kultuur.err.ee 2023 [TalTechi vanemlektor: uute hoonete asemel peaksime väärtustama olemasolevaid](#)

Talvise toaõhu kuivus sai selgemaks

Imeline Teadus 2020 / lk. 20 : fot https://www.ester.ee/record=b2747925*est

Tartus valmis esimene ringkasutatud ehitusmaterjalidest rattapaviljon

postimees.ee 2023 [Tartus valmis esimene ringkasutatud ehitusmaterjalidest rattapaviljon](#)

The analysis of indoor hygrothermal conditions in multi-storey wooden apartment buildings

Kalamees, Targo; Arumägi, Endrik; Ilomets, Simo IEA Annex 55 (RAP-RETRO), Working meeting, Porto, Portugal, 18-20 April 2011 / [17] p

The integration of selected technology to energy activated ETICS - theoretical approach

Heim, Dariusz; Chodak, Ivan; **Ilomets, Simo**; Knera, Dominika; Wieprzkowicz, Anna; **Kalamees, Targo** E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 21004, 7 p. : ill <https://doi.org/10.1051/e3sconf/202017221004> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Thermal performance of ETICS, energy activated with PCM and PV

Talvik, Martin; Ilomets, Simo; Kalamees, Targo; Klõšeiko, Paul; Heim, Dariusz; Wieprzkowicz, Anna; Knera, Dominika Journal of physics : conference series 2021 / art. 012116, p. 1-8 : ill <https://doi.org/10.1088/1742-6596/2069/1/012116> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Towards improving the durability and overall performance of PV-ETICS by application of a PCM layer

Heim, Dariusz; Wieprzkowicz, Anna; Knera, Dominika; **Ilomets, Simo; Kalamees, Targo**; Spitalsky, Zdenko Applied sciences 2021 / art. 4667, 13 p. : ill <https://doi.org/10.3390/app11104667> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Validation of the method to evaluate the corrosion propagation stage by hygrothermal simulation

Ilomets, Simo; Kalamees, Targo; Lahdensivu, Jukka CESB 16 - Central Europe Towards Sustainable Building 2016 : Innovations for Sustainable Future : [book of abstracts] 2016 / p. 317-318 : ill

Validation of the method to evaluate the corrosion propagation stage by hygrothermal simulation [Online resource]

Ilomets, Simo; Kalamees, Targo; Lahdensivu, Jukka CESB 16 - Central Europe Towards Sustainable Building 2016 : Innovations for Sustainable Future : [electronic proceedings] 2016 / p. 1113-1120 : ill

Эстоноземельцы мерзнут в старых домах, где нет никакой теплоизоляции. Как так получилось?

Izumrudov, Artur rus.delfi.ee 2023 [Эстоноземельцы мерзнут в старых домах, где нет никакой теплоизоляции. Как так получилось?](#)