

Implementation of EN 16516 EURIMA experience

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eurima
European Insulation Manufacturers Association

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The European Insulation Manufacturers Association

Represents the interests of all major *mineral wool* producers throughout Europe

fibran Knauf INSULATION PAROC ROCKWOOL
SAGER ISOVER URSA

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Implementation of EN 16516

Mineral wools

- Insulation materials
 - Glass wool/stone wool + binder (polymers)
 - With or without facing
 - Panel, Roll, Blowing wool
- Focus on indoor applications
 - Insulation of Walls, Floor / Ceiling, Attics
- Products are mostly in indirect contact with indoor air

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Comments on test – insulations products

- Measurements of emission if asked
 - Product tested alone
- Previously ISO 16000 series (EN 13419*) for almost products
 - Same testing method
 - Same testing conditions
 - Same way to express results
- Prevent commercial issue between competing products

* EN 13419 now inactive

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Comments on test – insulations products

- Reminds on emission test method
 - Climatic chamber

One exposed surface

23°C / 50% RH
Specific air flow rate
1 to 28 days testing

VOC sampling

VOC identification & quantification

Results expressed as $\mu\text{g pollutants} / \text{m}^3$ air according to a defined scenario

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Standard testing methods

- ISO 16000 series
 - Well-known international standards usable worldwide
 - Few lacks of detailed information (e.g. robustness, chemical analysis)
- EN 16516
 - EU standard based on ISO 16000
- Comparison EN 16516 and ISO 16000


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Comparison EN 16516 and ISO 16000

EN 16516	Changes / improvements	Comments
Protocol		
Chemical analysis		
Results		




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Comparison EN 16516 and ISO 16000

EN 16516	Changes / improvements	Comments
Protocol	Robustness validation tests	Chamber size, testing conditions
	Sample preparation	More detailed preparation step
	Avoid cross-pollution	Sample in the chamber during the whole test
Chemical analysis		
Results		




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Comparison EN 16516 and ISO 16000

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	Sample preparation	More detailed preparation step
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Chemical analysis	Better identification of compounds (equipment)	GC/MS instead of GC/FID
	Details for quantification	VOC's, Total VOC
	Reliable quantification	Avoid bias for benzene quantification
Results		




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Comparison EN 16516 and ISO 16000

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Results	More realistic model room	12m ² (normative) instead of 7m ² (informative)




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- To summarize
 - No big changes regarding ISO 16000
 - Some more detailed information
 - Some improvements




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Implementation of EN 16516

Comments on implementation of EN 16516

- No significant difficulty for producers to ask laboratories for tests using EN 16516
 - Easy to implement (only small adaptations from ISO16000)
 - Few changes in VOC's analysis for some labs (GC-MS)
- Improvements
 - Avoid potential contaminations (mineral wools are porous)
 - Sample inside the climatic chamber during the whole test
- No cost issue ...
- In conclusion = a good work !



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