

# Non-specified and non-standard testing

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**NIST**



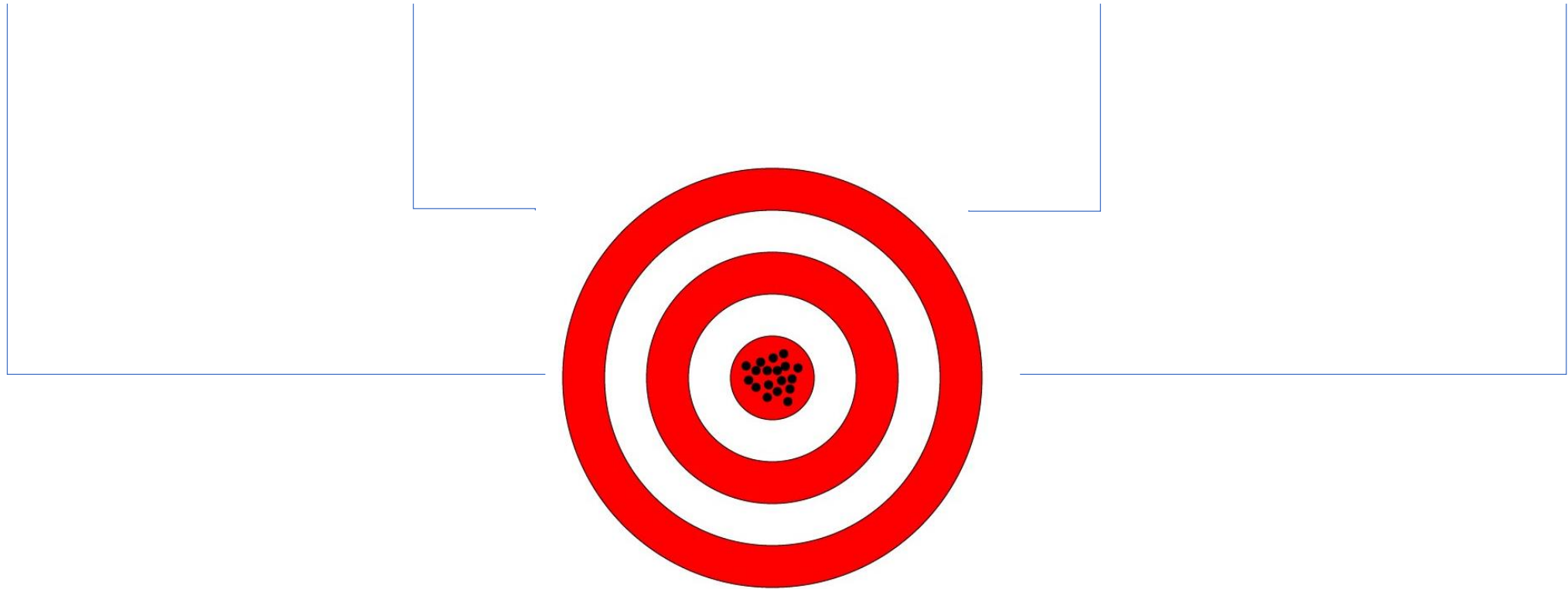
# Testing to a Standard - perfect

Accurate

Repeatable

Reproducible

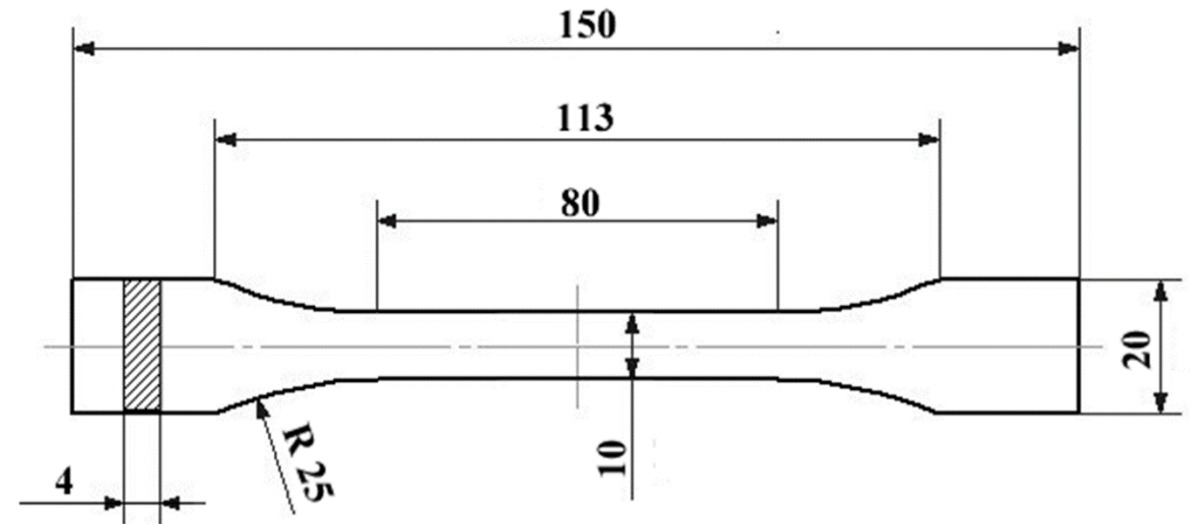
Traceable



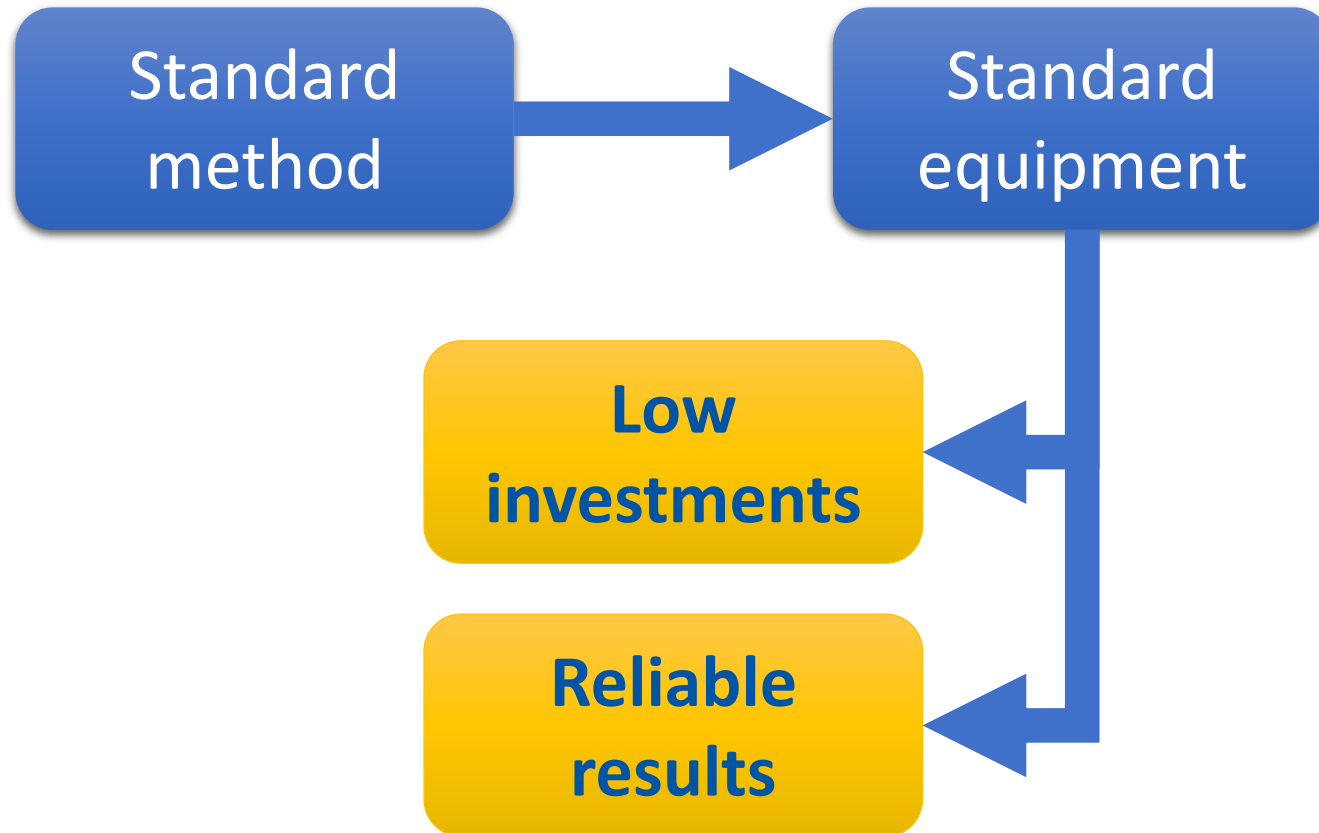
Possible to compare different materials

Possible to use results of other laboratories

Often different testing standards are crosslinked



# Testing to a Standard - equipment



# Why DON'T we USE non-standard testing?

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Not easy to compare results

Requires thinking

Needs more responsibility

Expensive operation time

Difficult to validate

# Why do WE NEED non-standard testing?





# Typical material datasheet

Properties	ISO Test Method	Test Condition	Unit	Result
...				
Tensile Strength	527	50 mm/min, yield	MPa	47
Tensile Elongation	527	50 mm/min	%	30
Izod Impact Strength	180/1A	23°C Notched	kJ/m <sup>2</sup>	28
Izod Impact Strength	180/1A	-30°C Notched	kJ/m <sup>2</sup>	17
...				



Result – numbers

# Datasheet from Customer's point of view

Properties	ISO Test Method	Test Condition	Unit	Result
...				
Falling on the ground	-	1 meter height asphalt	-	pass
Falling in a water	-	10 sec	-	pass
Abrasion resistance	-	1 year in pocket with coins and keys	-	pass
Freeze resistance	-	- 40 C	-	pass
...				



Result – emotions, feelings, experience. Not numbers but “good” or “bad”

# When do we need non-standard testing?

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- 1) There are no suitable standards in the world
- 2) The result of standard test is hard to use or to interpret
- 3) We have no standard equipment in laboratory
- 4) We need to make express-testing, only to compare, without values
- 5) ..more

Testing of product during the long time in practice

Sample: car testing on real road



Testing of 2 similar products from different manufactures  
("Dove" and "Typical shampoo", "Iphone" and "Not-Iphone")

Main target – to show that our product is  
better, absolute result doesn't matter



Testing of product directly by user in marketing events

Main target – to promote product

- 1) Using of improvised materials
- 2) Many trials if it needs exact value
- 3) Quick qualitative result (good/bad)
- 4) Using of expert opinion as result

## Preconditions:

- 1) Claims
- 2) Previous experience

## Conditions:

- 1) Describe parameters of real situation as exact as possible
- 2) Use tools and units from practice
- 3) Video-recording



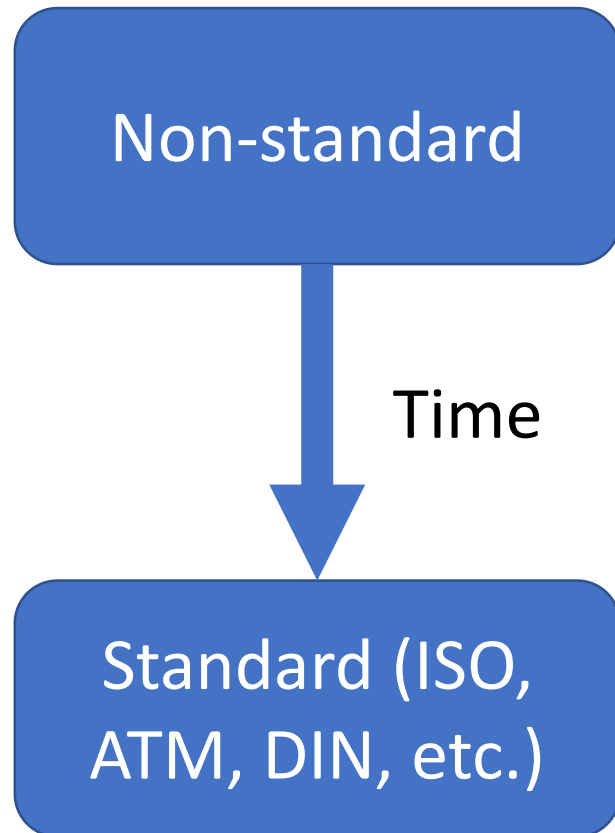
- 1) Very important: exact describe of method and of all conditions in resulting report
- 2) Be careful with results out of range: don't exclude it only with statistic methods
- 3) Can be combined with standard testing results in the same report in testXpert III

## Scheme of work



## ..and in practice





# Hardest test

**StarLine**

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THANK YOU

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