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Ex03. Modified_Hollomon (AFDEX 8)

Modified_Hollomon 모델

$$\bar{\sigma} = K(\bar{\epsilon})\bar{\epsilon}^n$$

K : Strength coefficient (강도계수)

$\bar{\epsilon}$: Strain (변형률)

n : Strain hardening exp. (변형률 경화지수)

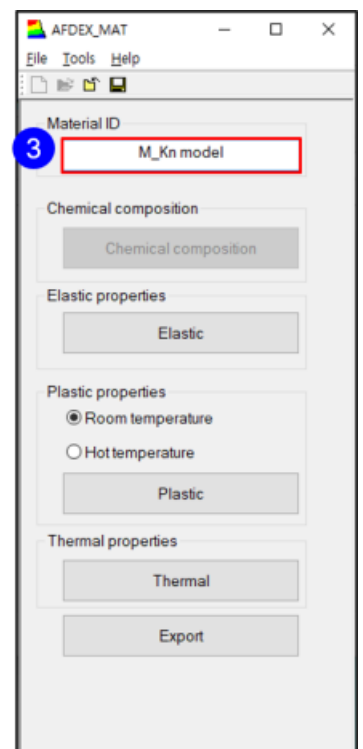
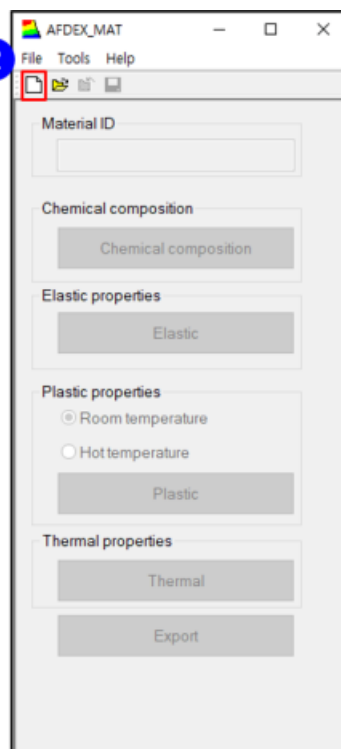
Y_0 : Minimum yield strength (최소항복강도)

[AFDEX_MAT]



1

2

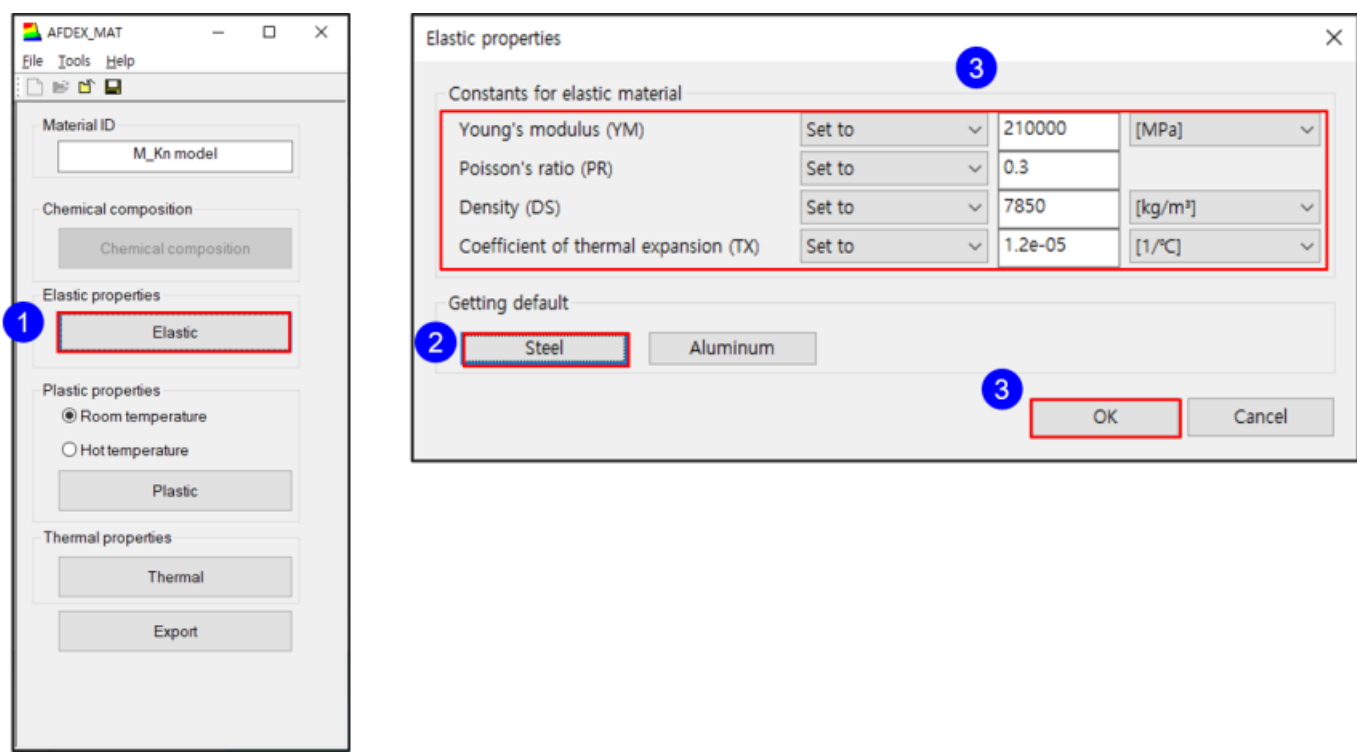


1. ADEX_MAT
2. "New" .
3. "Material ID" " " .

[

(Elastic)

]



1. “Elastic”
2. “Elastic properties” , “Getting default” “Steel” .(, Aluminum)
3. , “Young's modulus”, “Poisson's ratio”, “Density”, “Coefficient of thermal expansion”

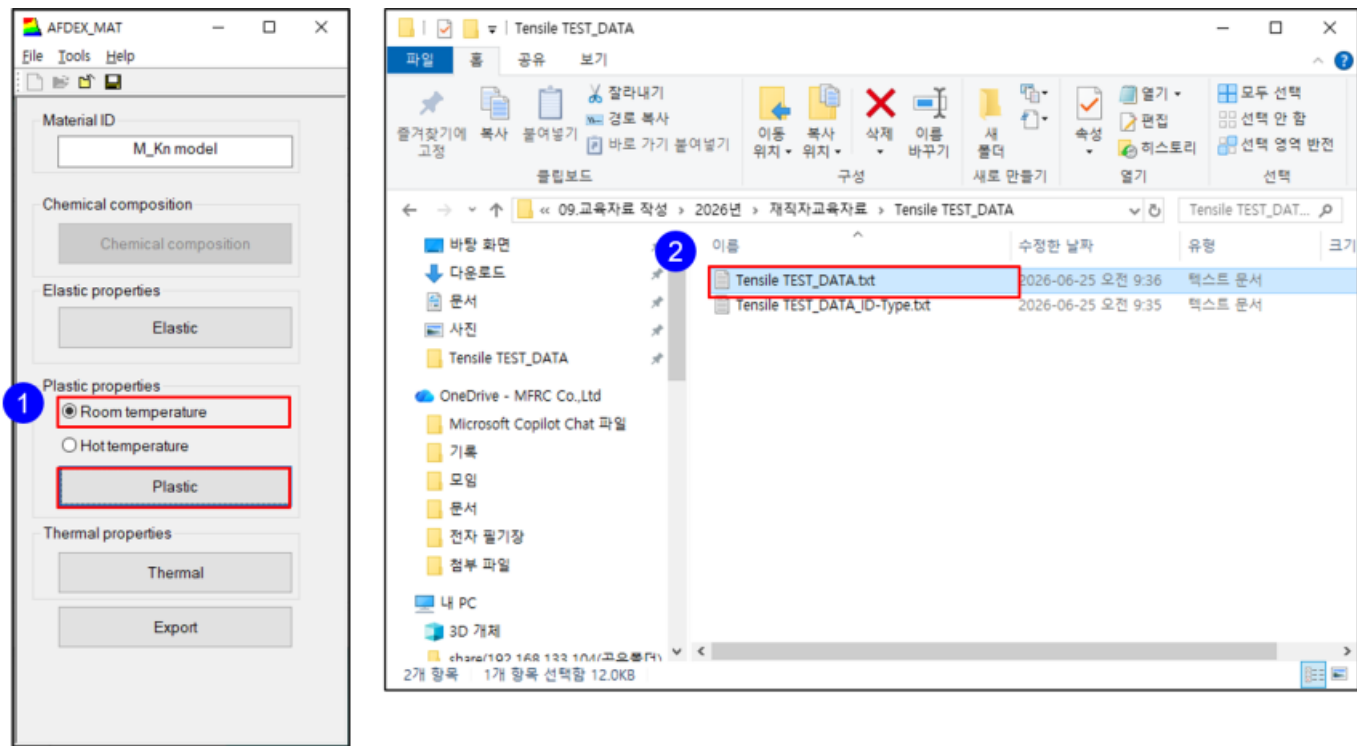
가 , 가 .

[

(Plastic)

—

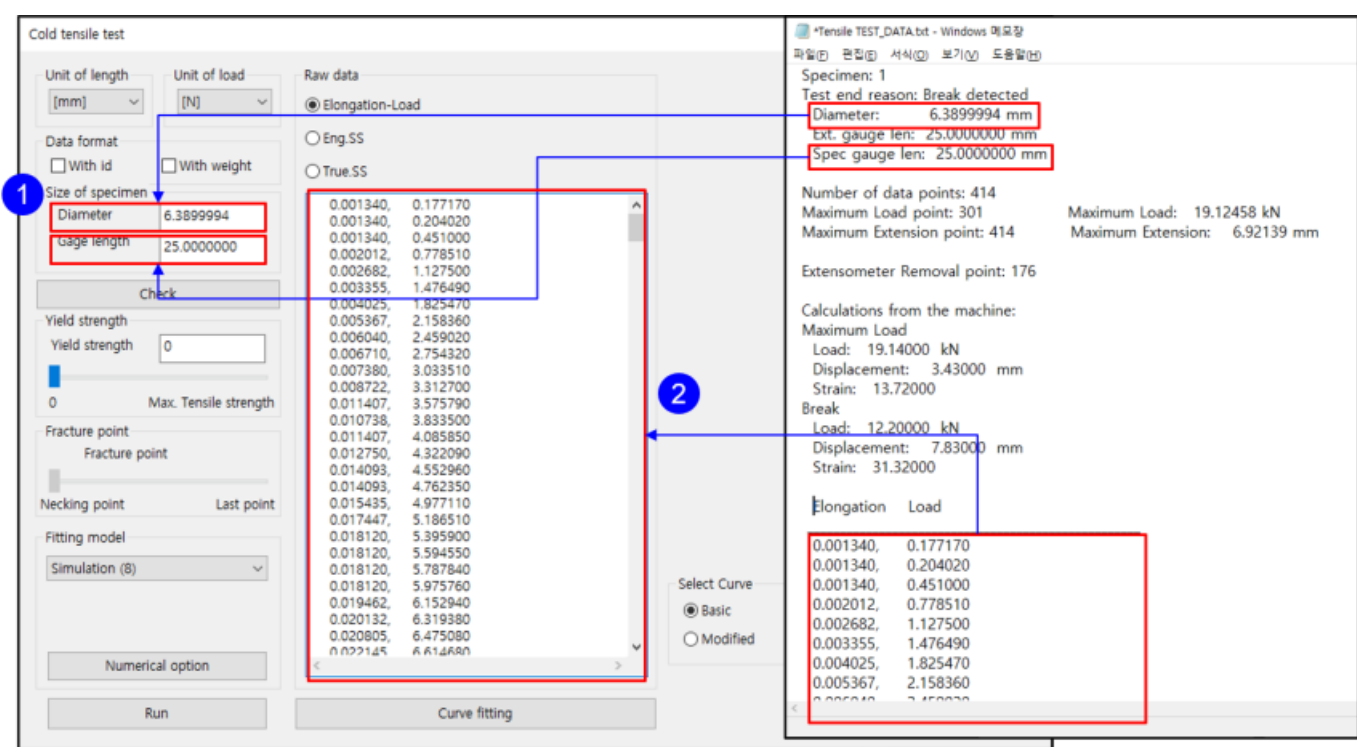
]



[

(Plastic)

]

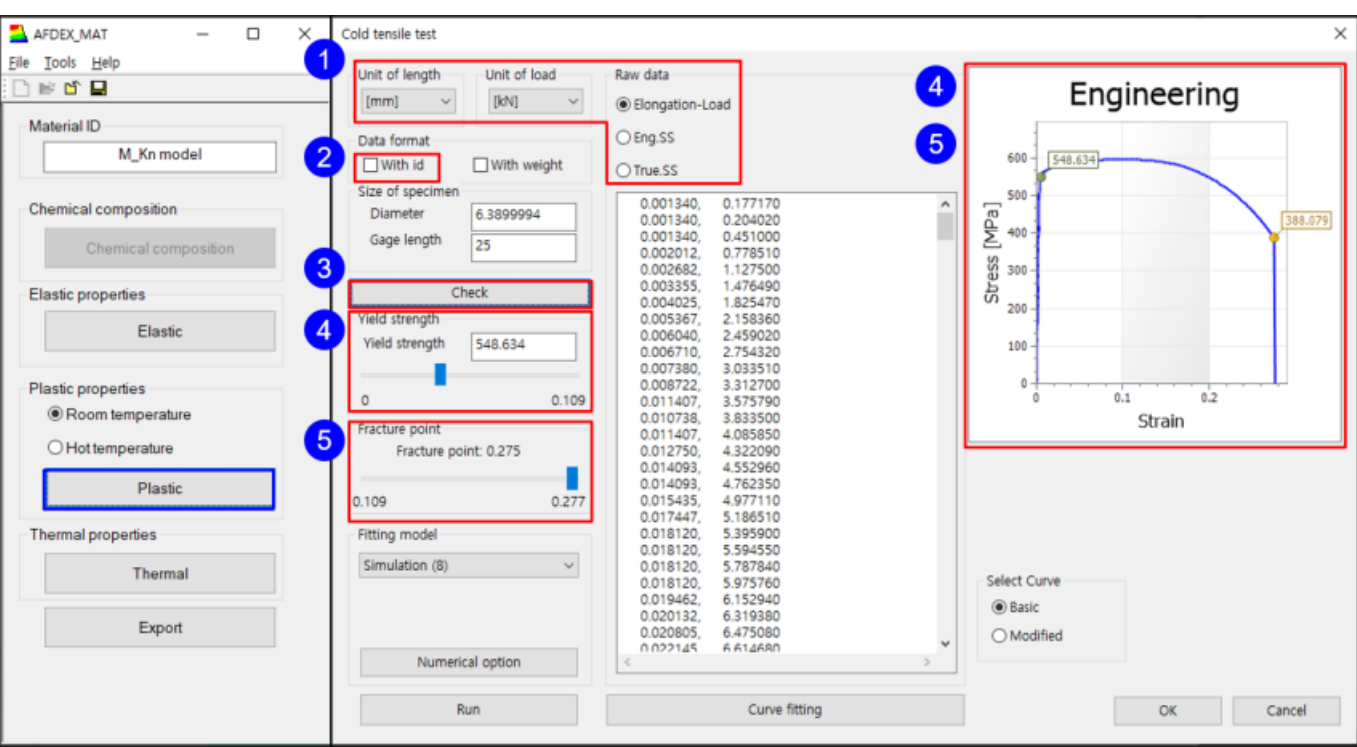


1.
2. (Elongation), (Load)

[

(Plastic)

]



1.
2. ID .("With id")

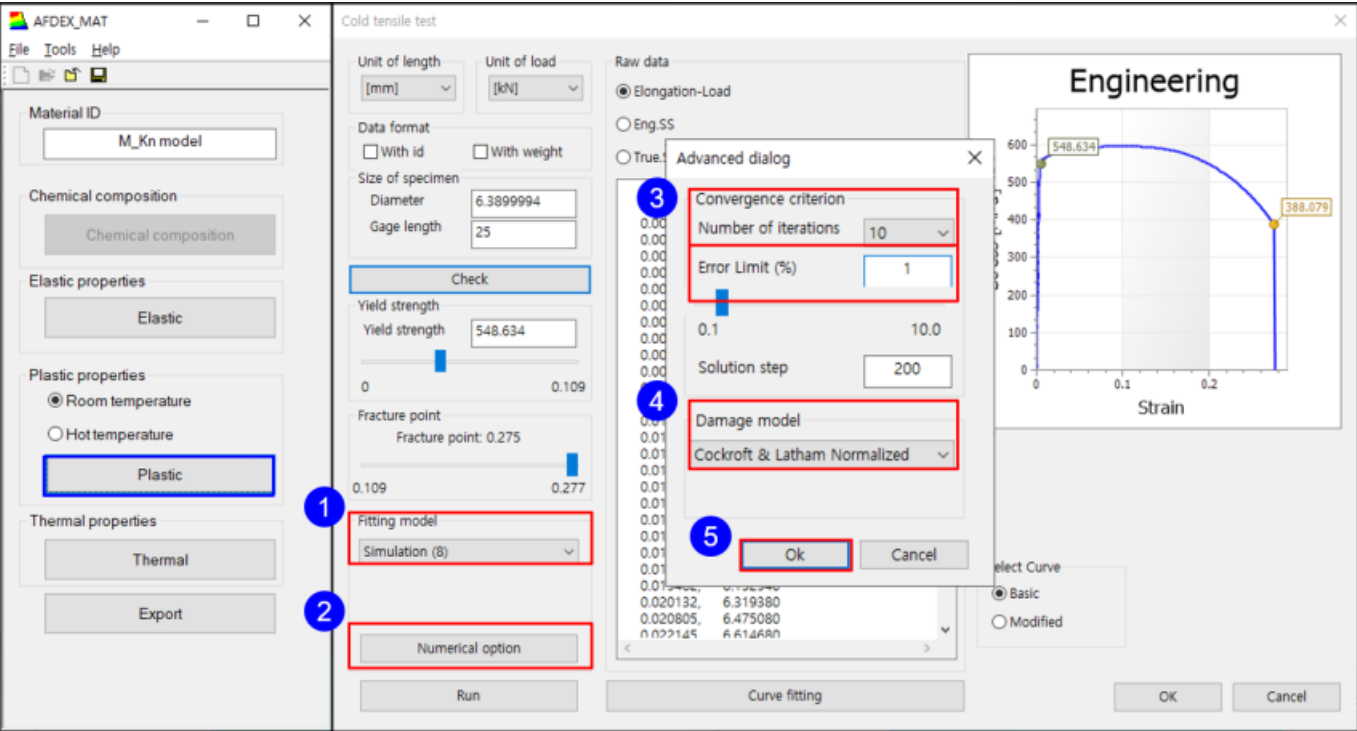
3. "Check"
4. . (
- .)
5. . (
- .)

[

(Plastic)

—

]



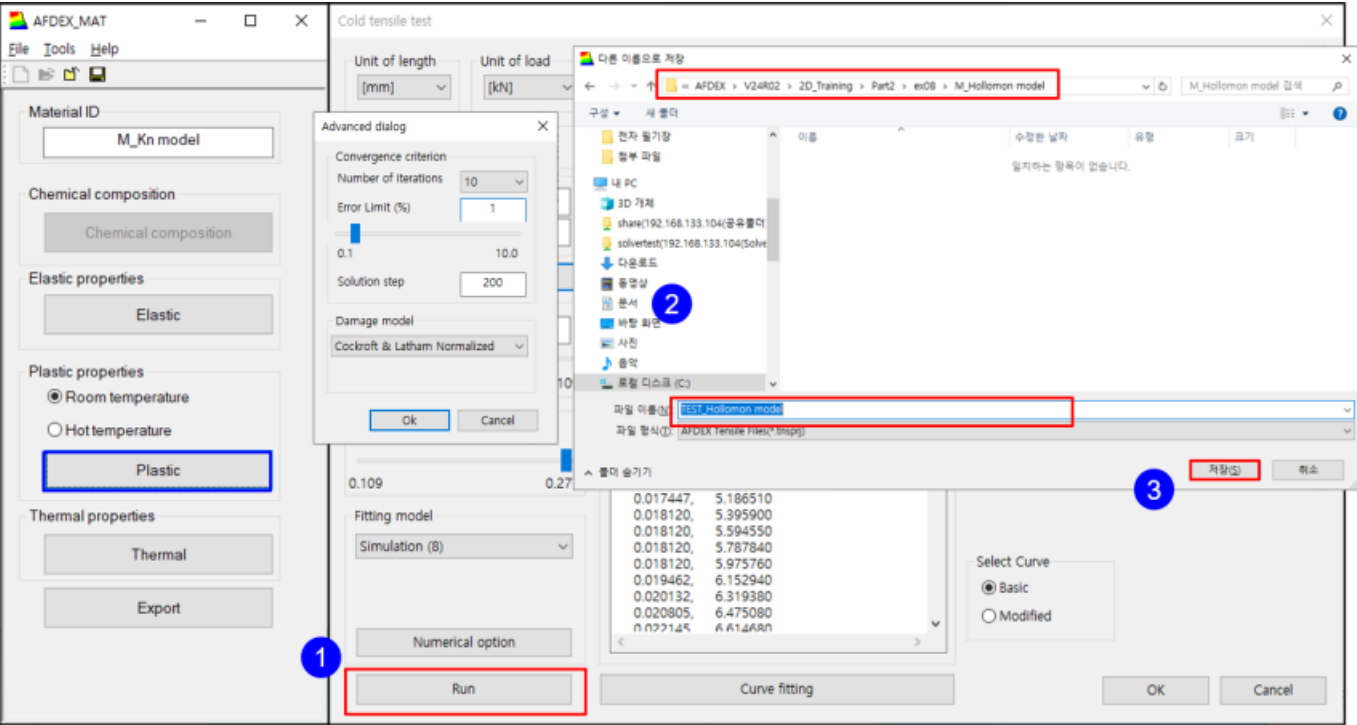
1. "Simulation (8)"
2. "Numerical option"
3. "Advanced dialog" , "Number of iterations" "10", "Error Limit (%)" "1"
4. "Damage model" , "Cockroft & Latham Normalized"
5. "OK"

[

(Plastic)

—

]

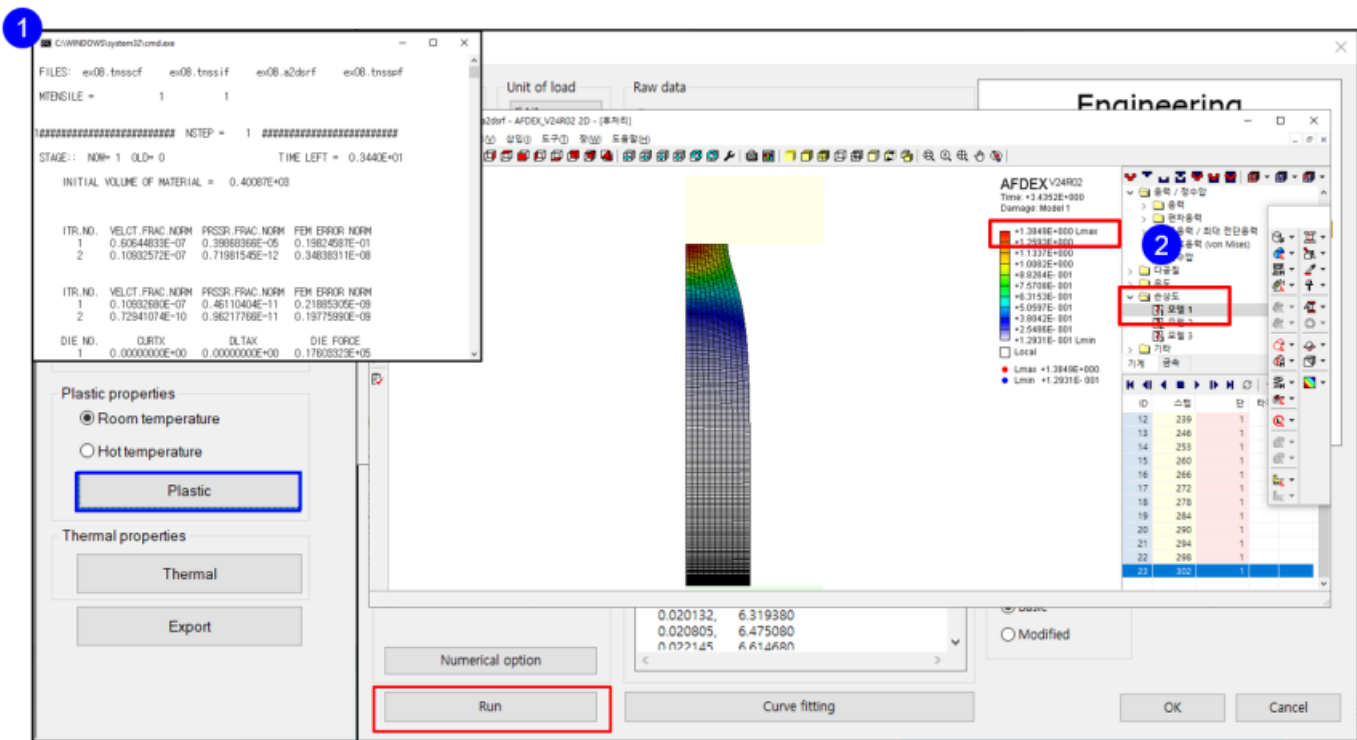


1. “ ” “Simulation (8)”

2. “Run”

3. “ ”

4. “ ”
- [(Plastic)]

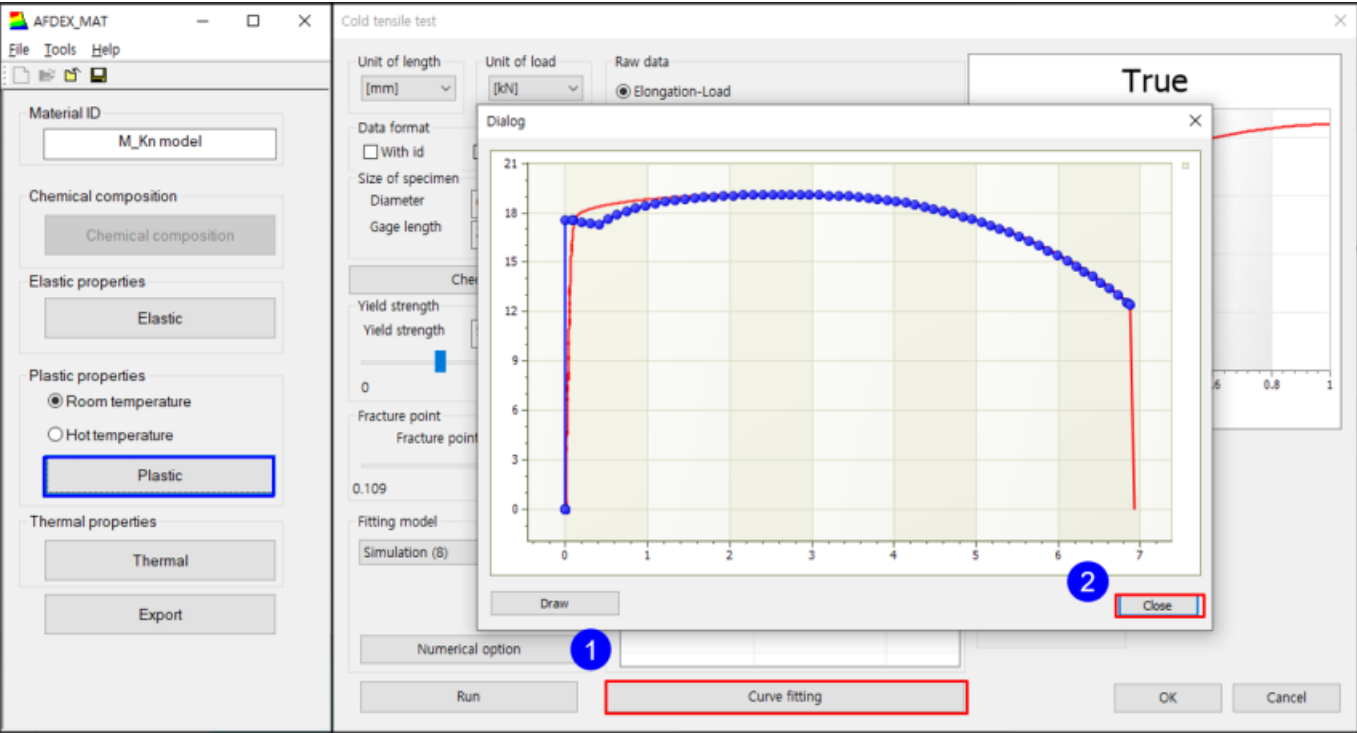


1. .(.)

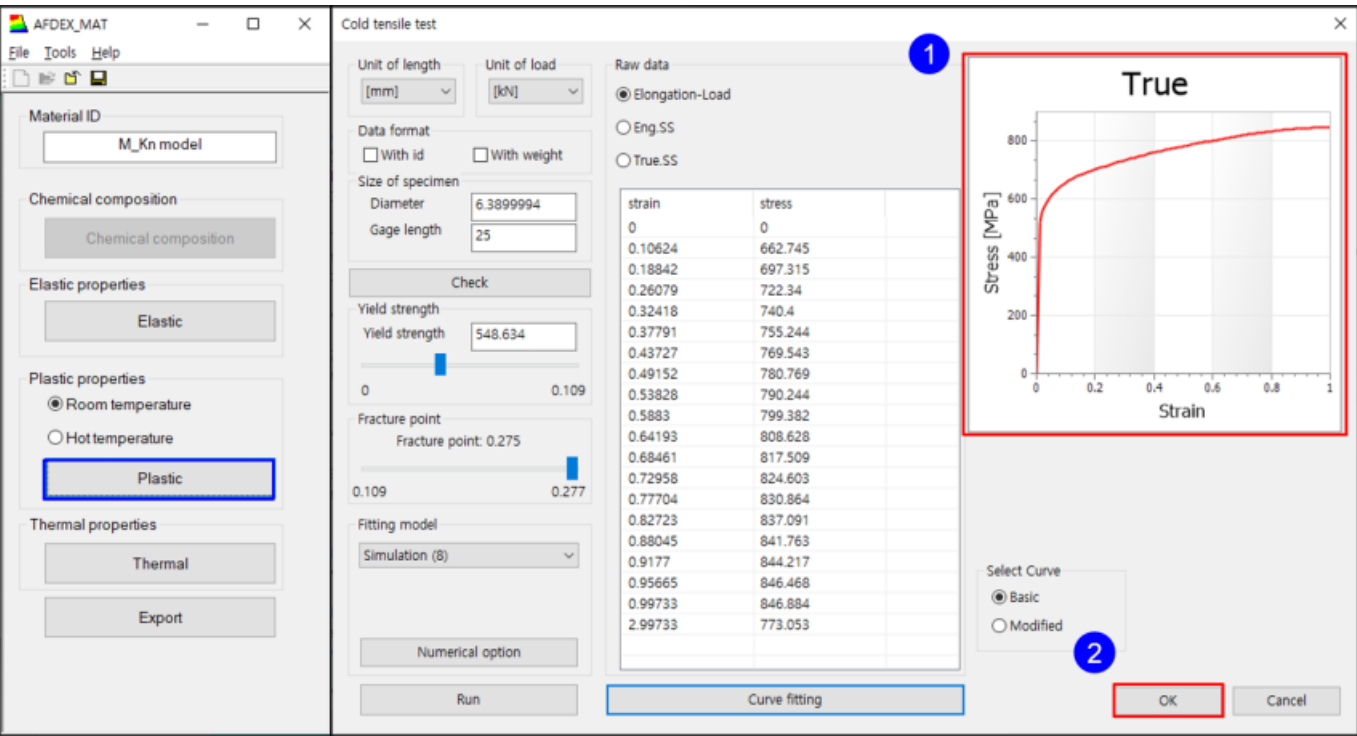
2. , “Post process window” “ → 1 ” ,

1.385

[(Plastic)]



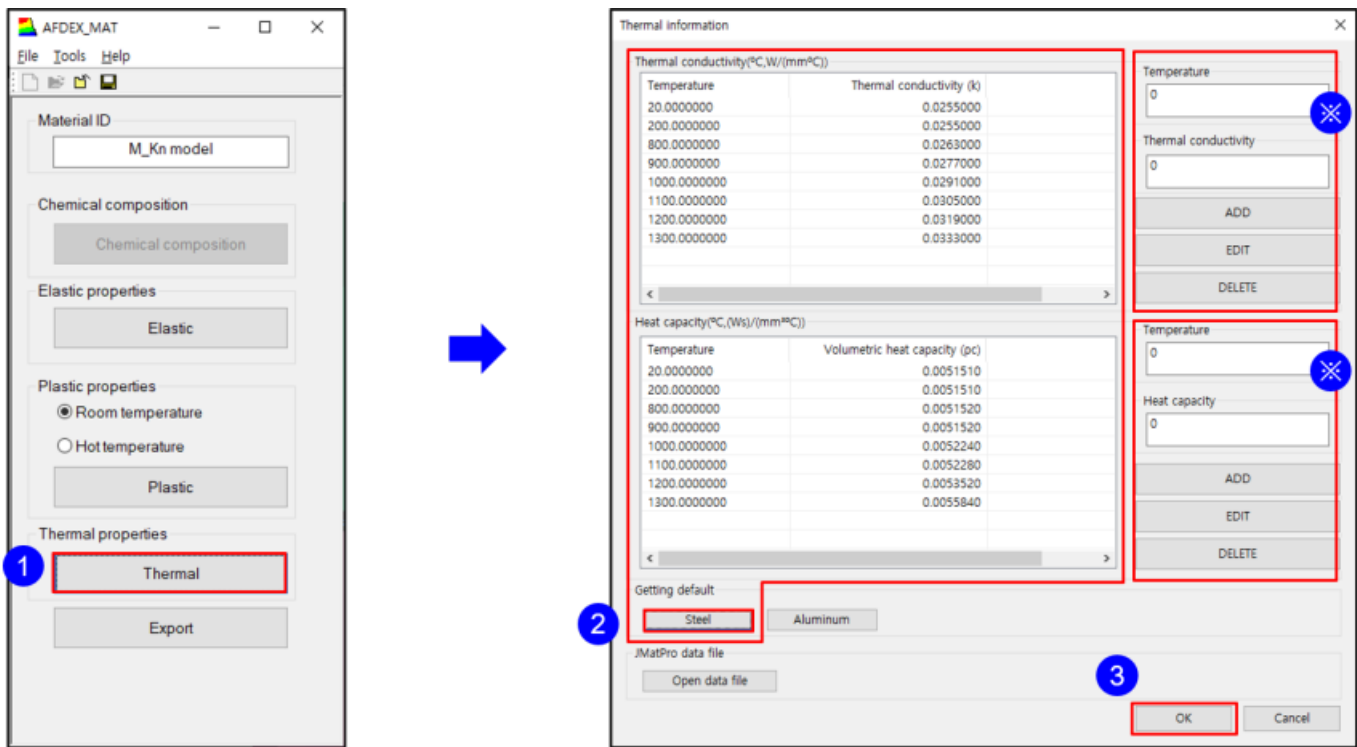
- 1. "Curve fitting"
- 2. "Dialog" , "Close"



- 1. . (-)

2. “OK”

[(Thermal)]



1. “Thermal”

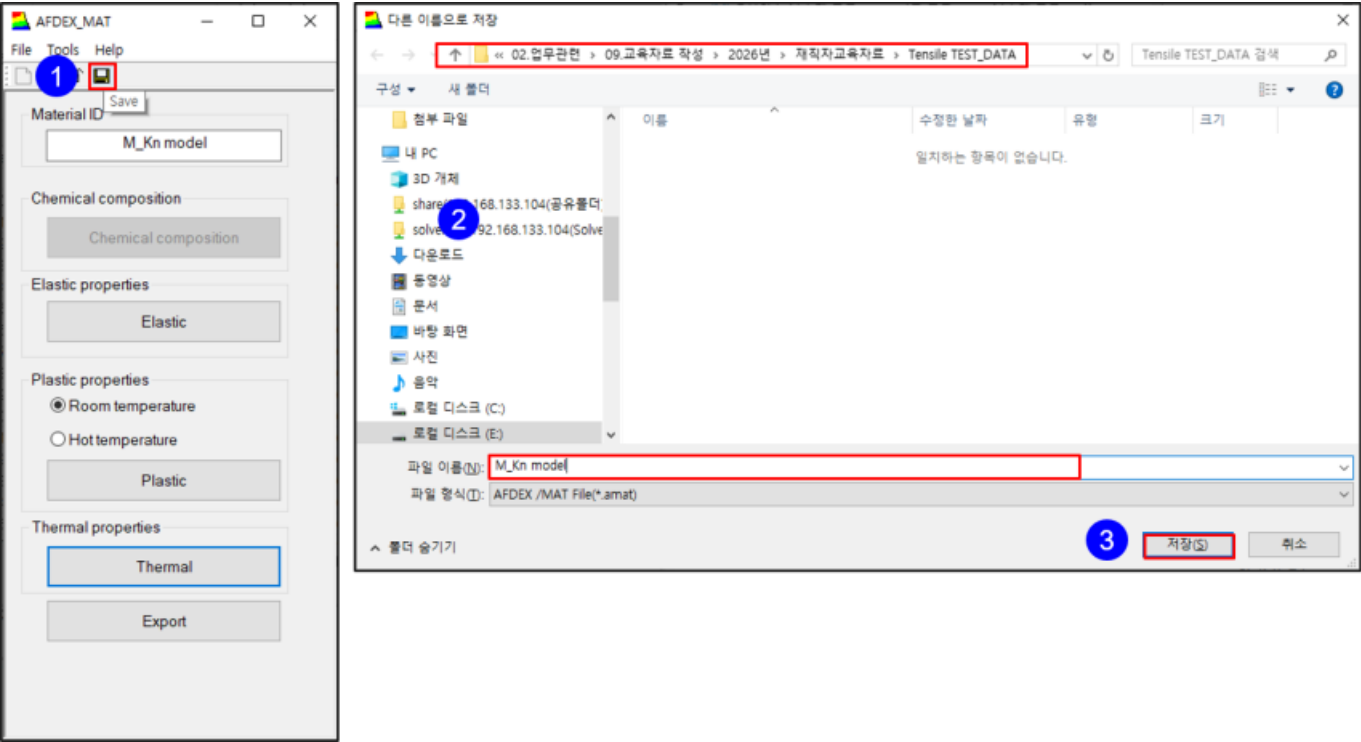
2. “Steel” . (.)

3. “OK”

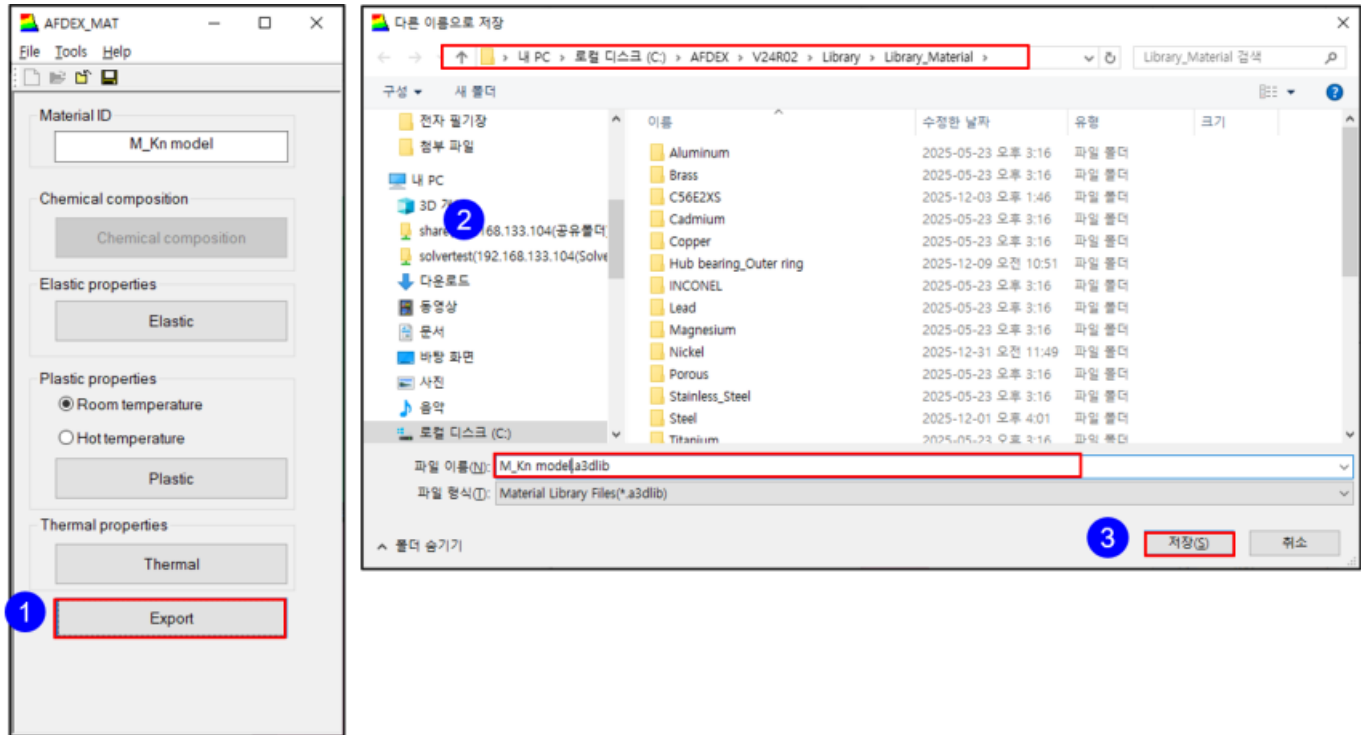
가

, “ADD”

[AFDEX_MAT]



1. "Save"
2. " " ,
3. " "
- "***.amat" AFDEX_MAT
- AFDEX_MAT " " ,
- 가 .
- []



1. “Export” .
2. “ ” , .
3. “ ” .

☐☐※ C

→ AFDEX → V24R02 → Library → Library_Material

AFDEX

’ “ : 가 ” , .

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