

Compressive behavior of SFRC in new EC2, Annex L

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Universidad de Castilla-La Mancha | Université du Luxembourg



2nd Generation EC2 — Madrid, October 17th 2023

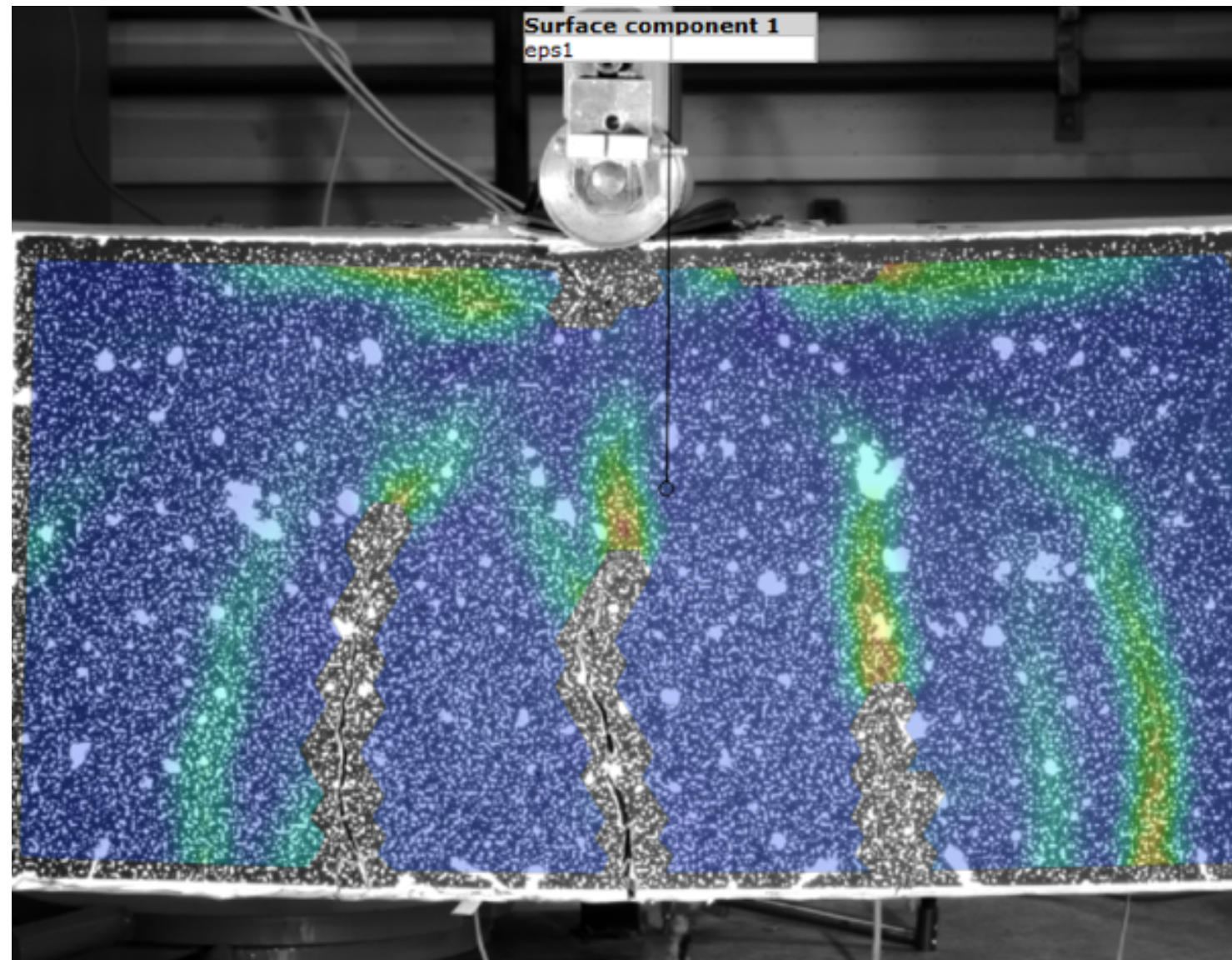
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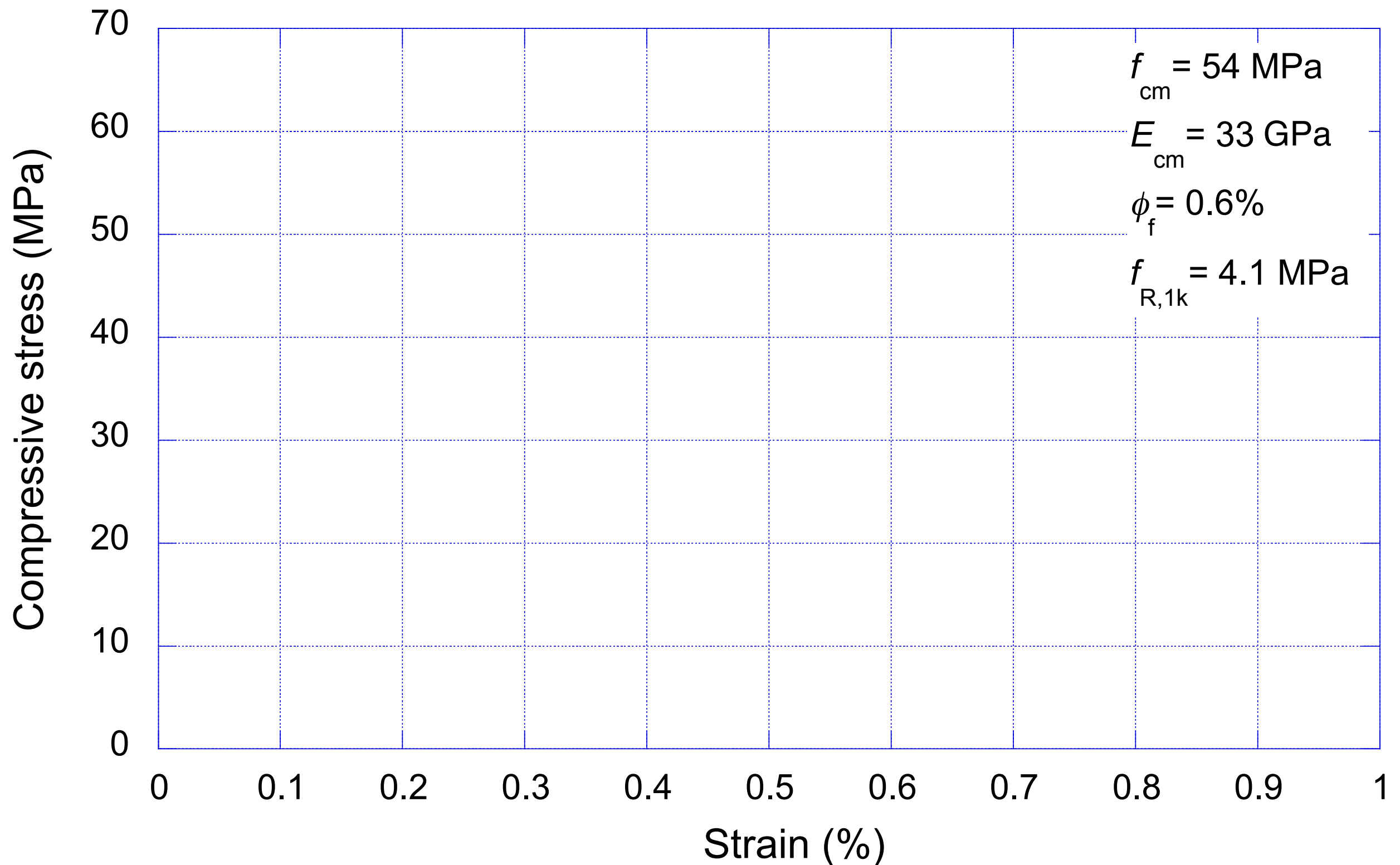
1. Introduction



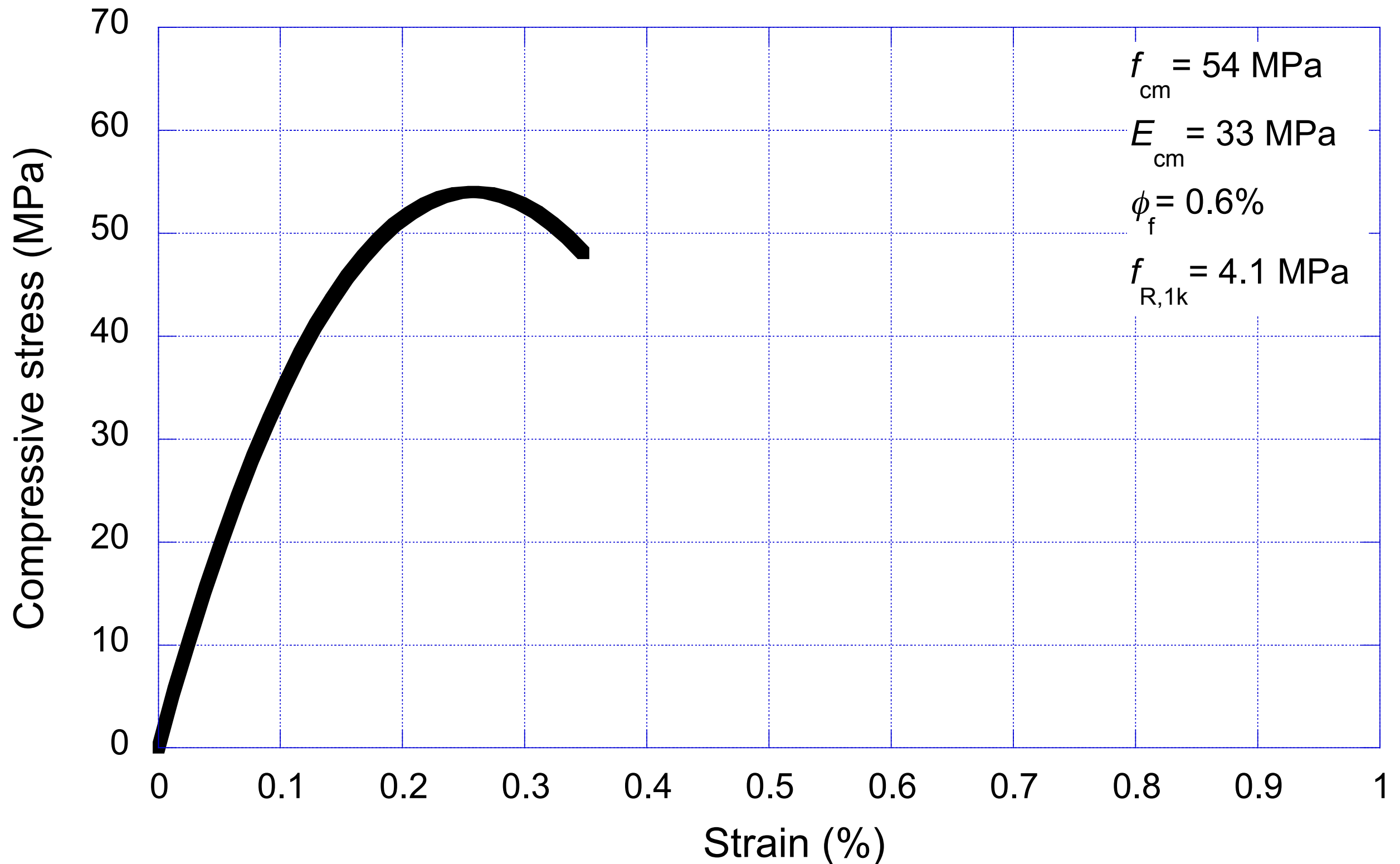
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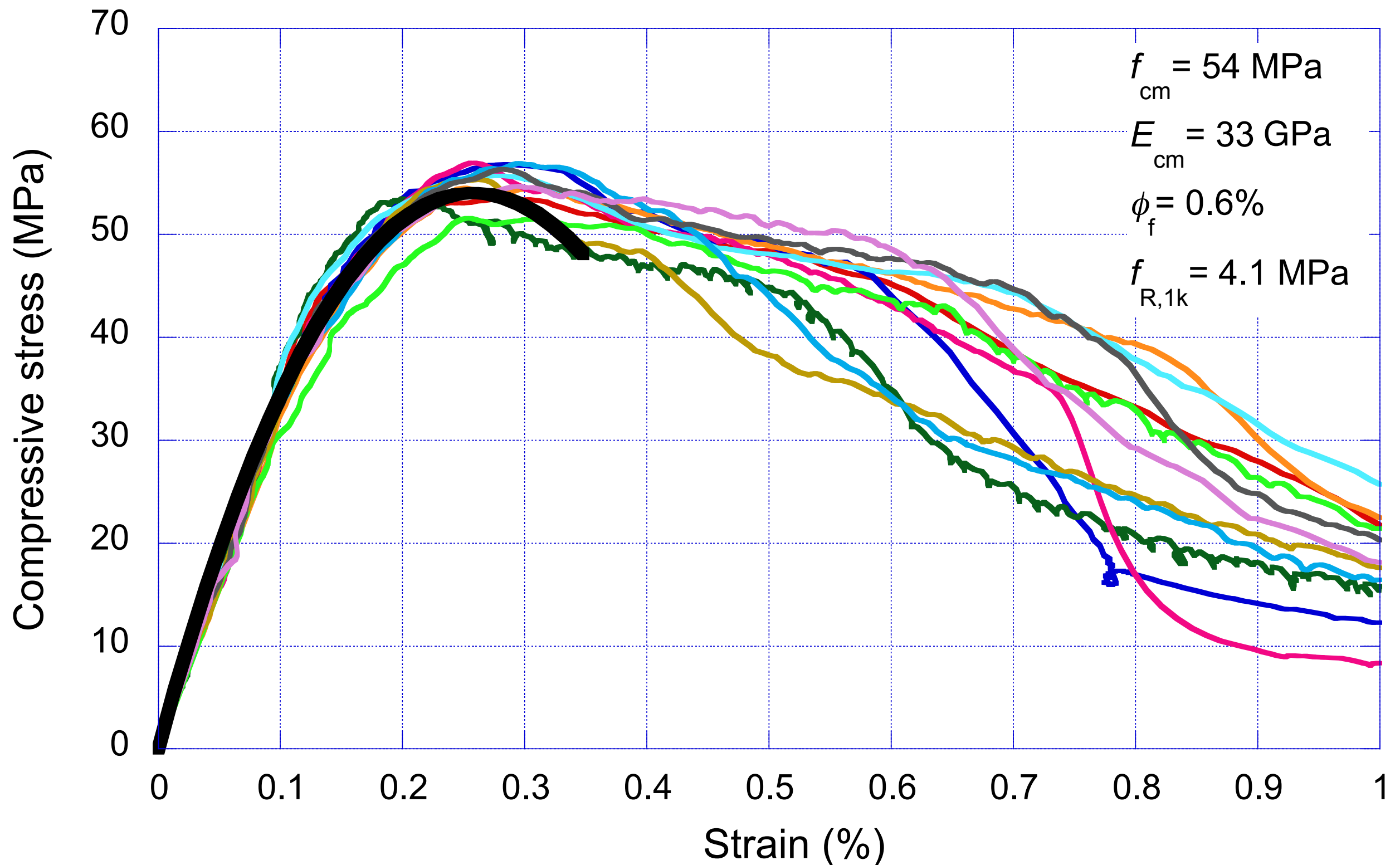
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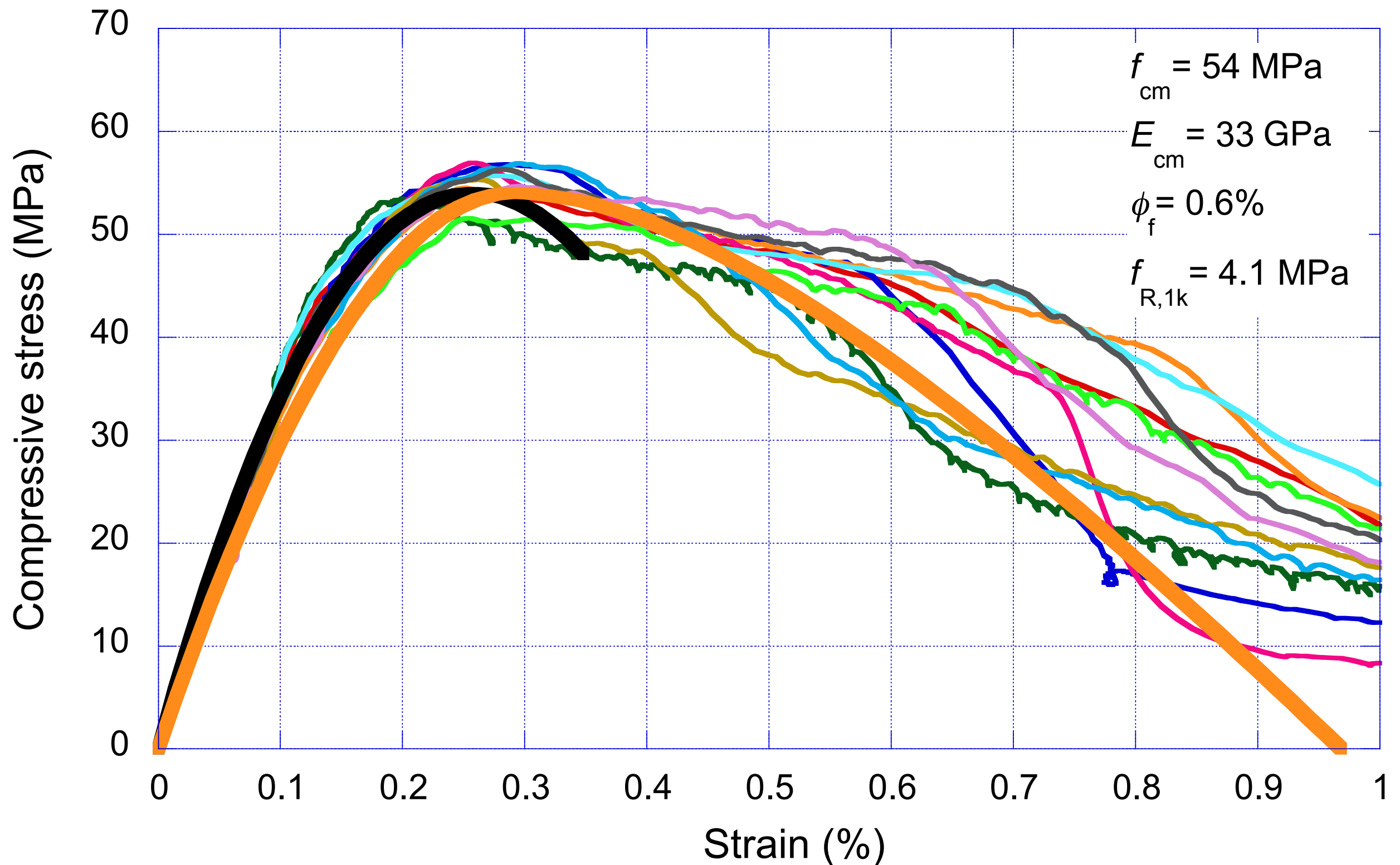
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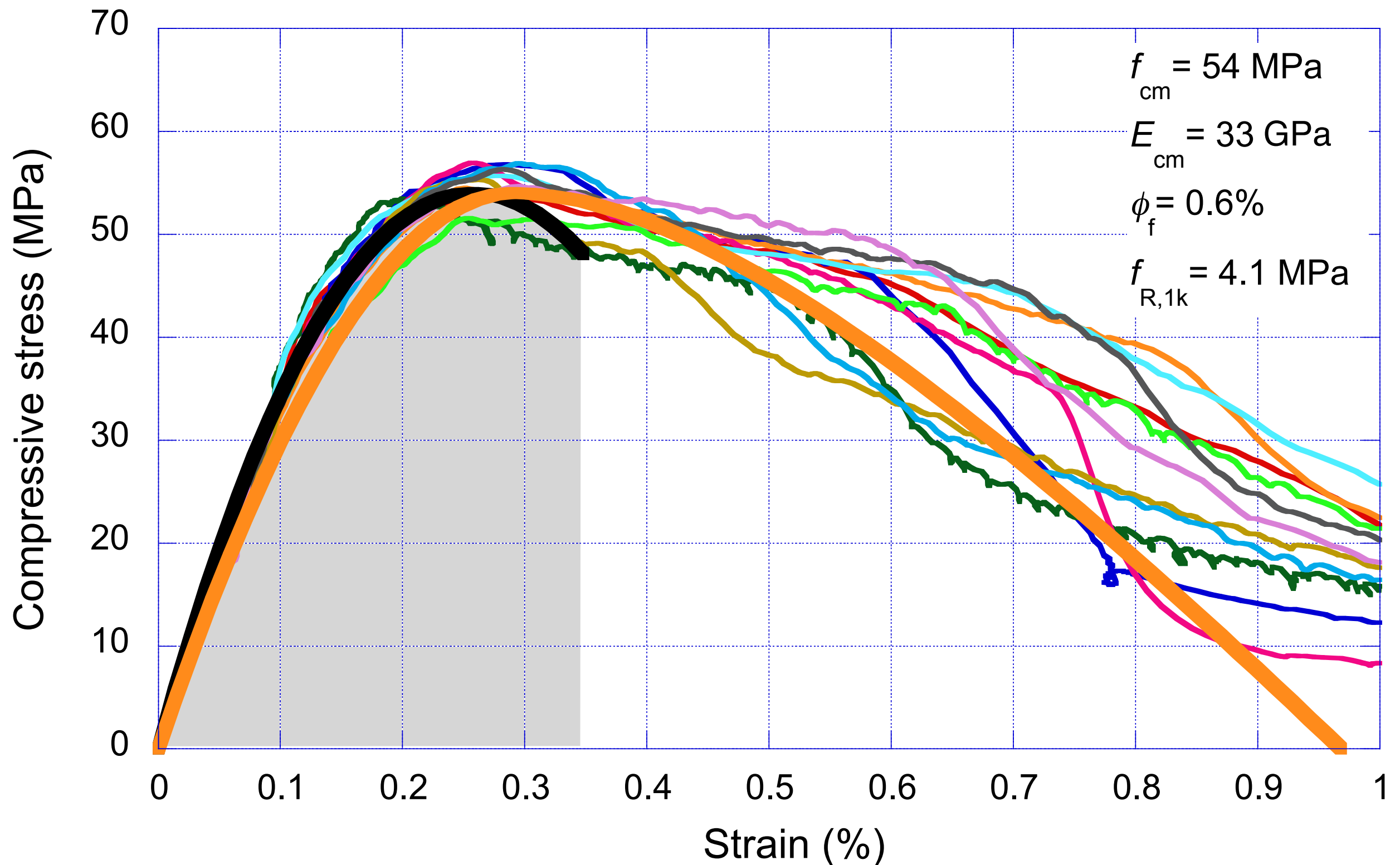
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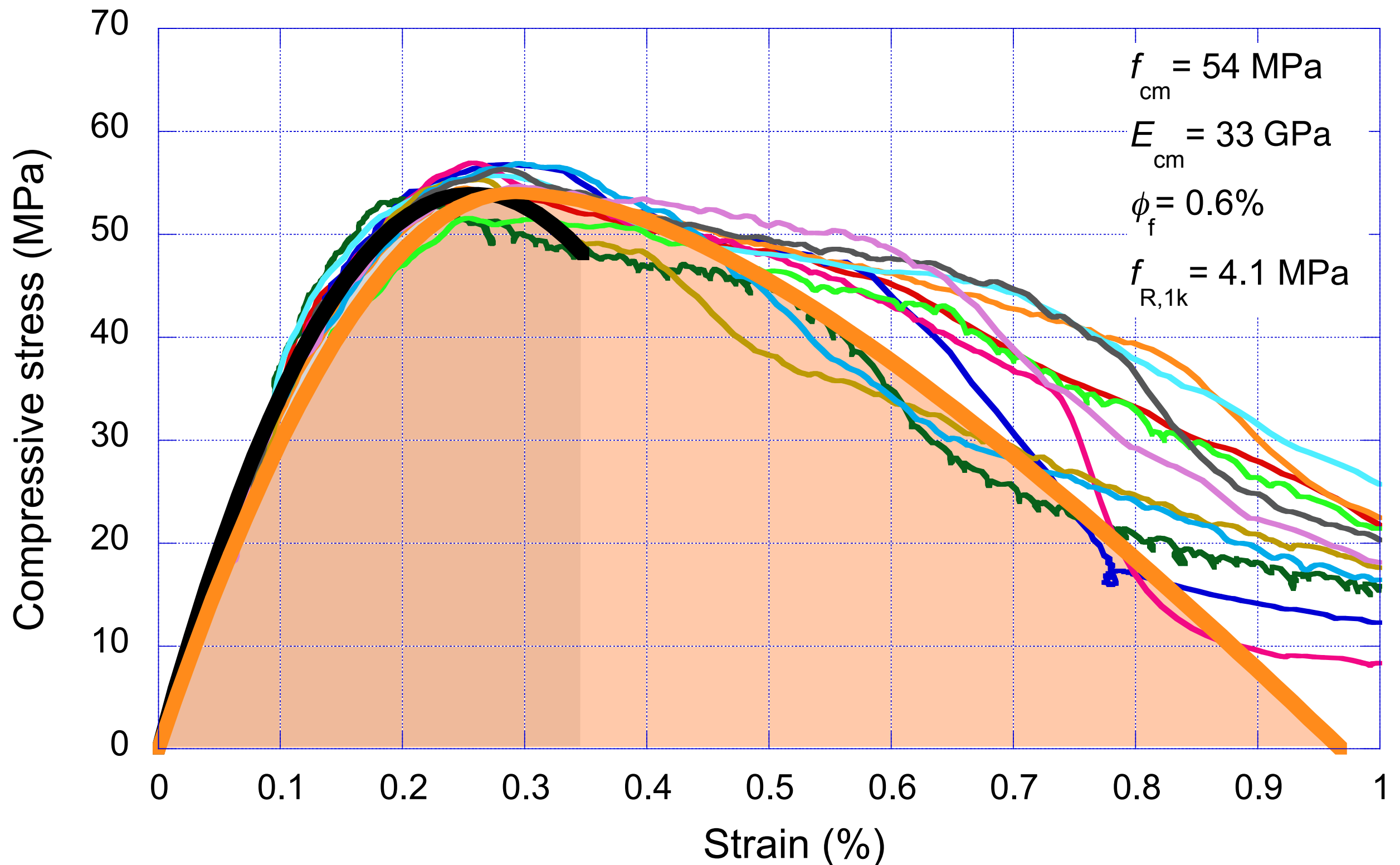
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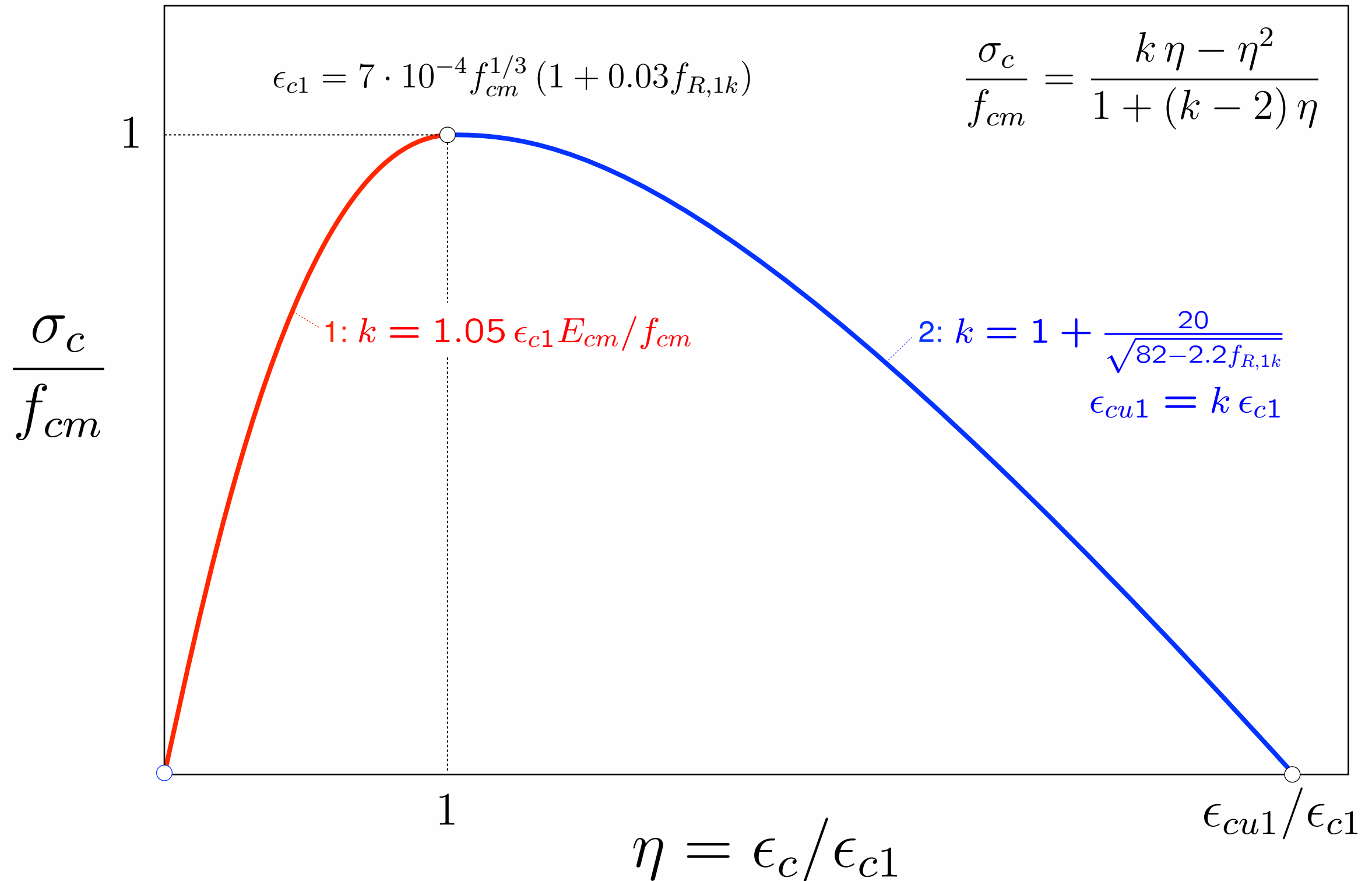
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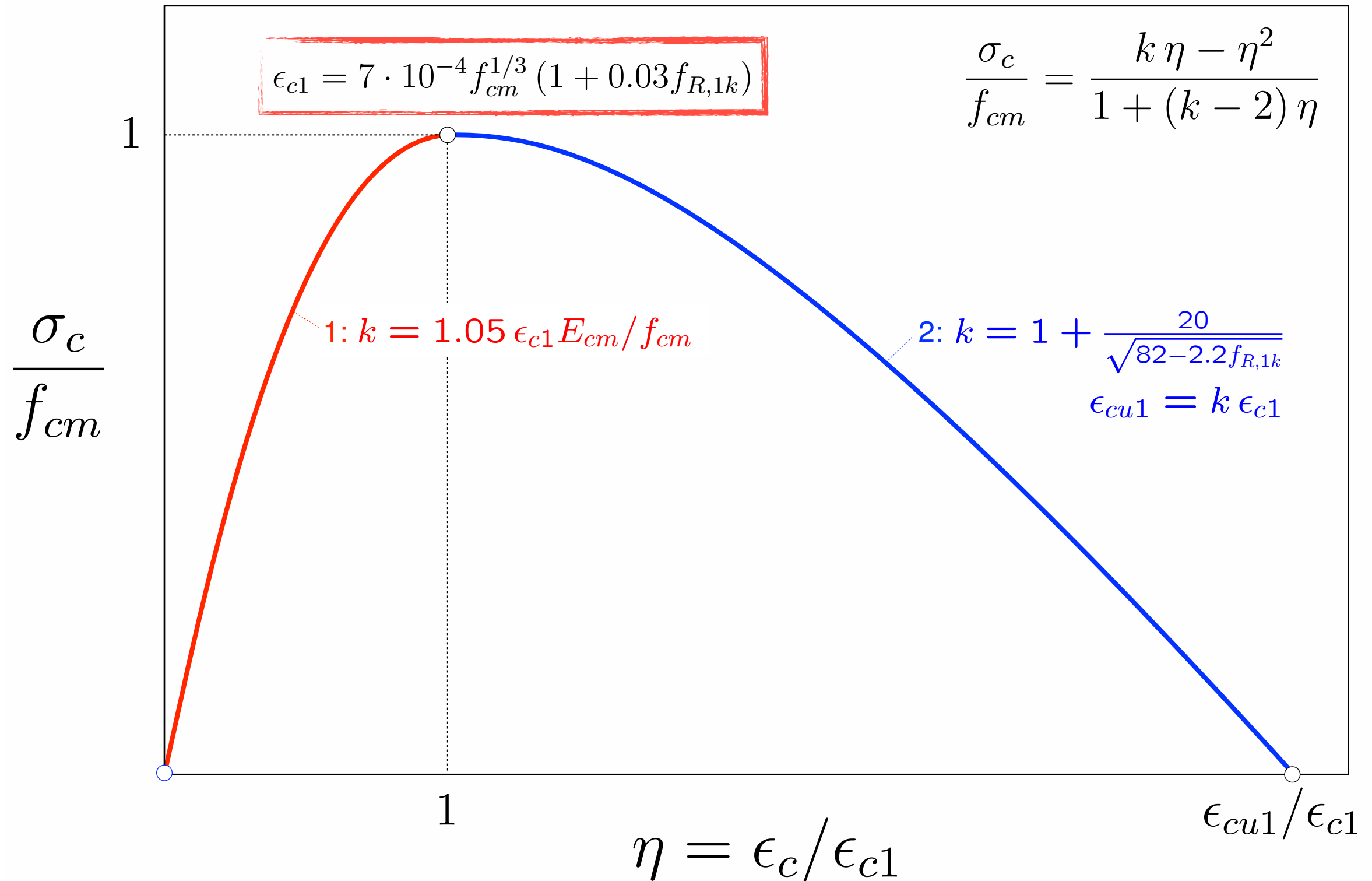
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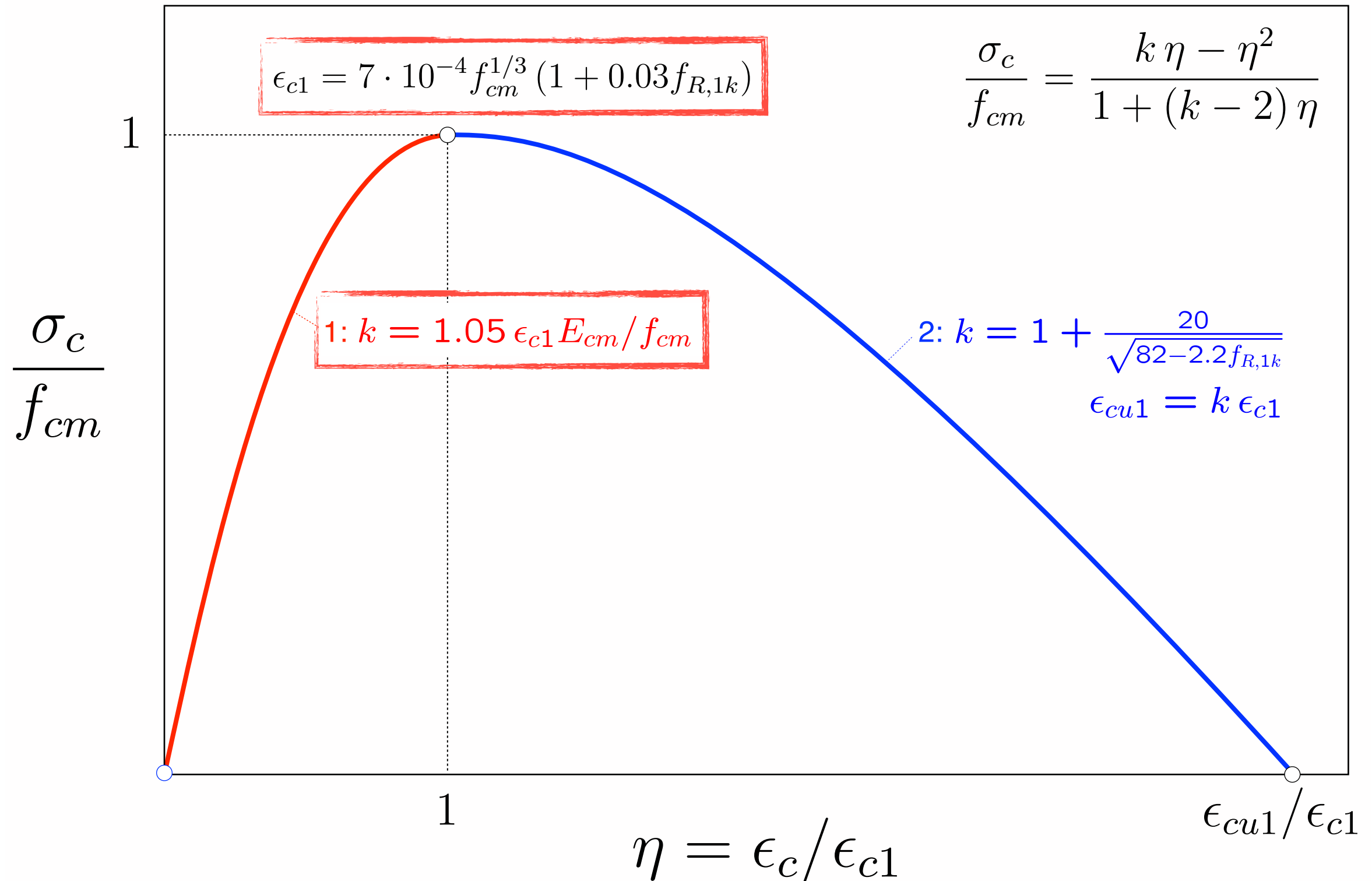
2. SFRC in compression: σ - ϵ relationship



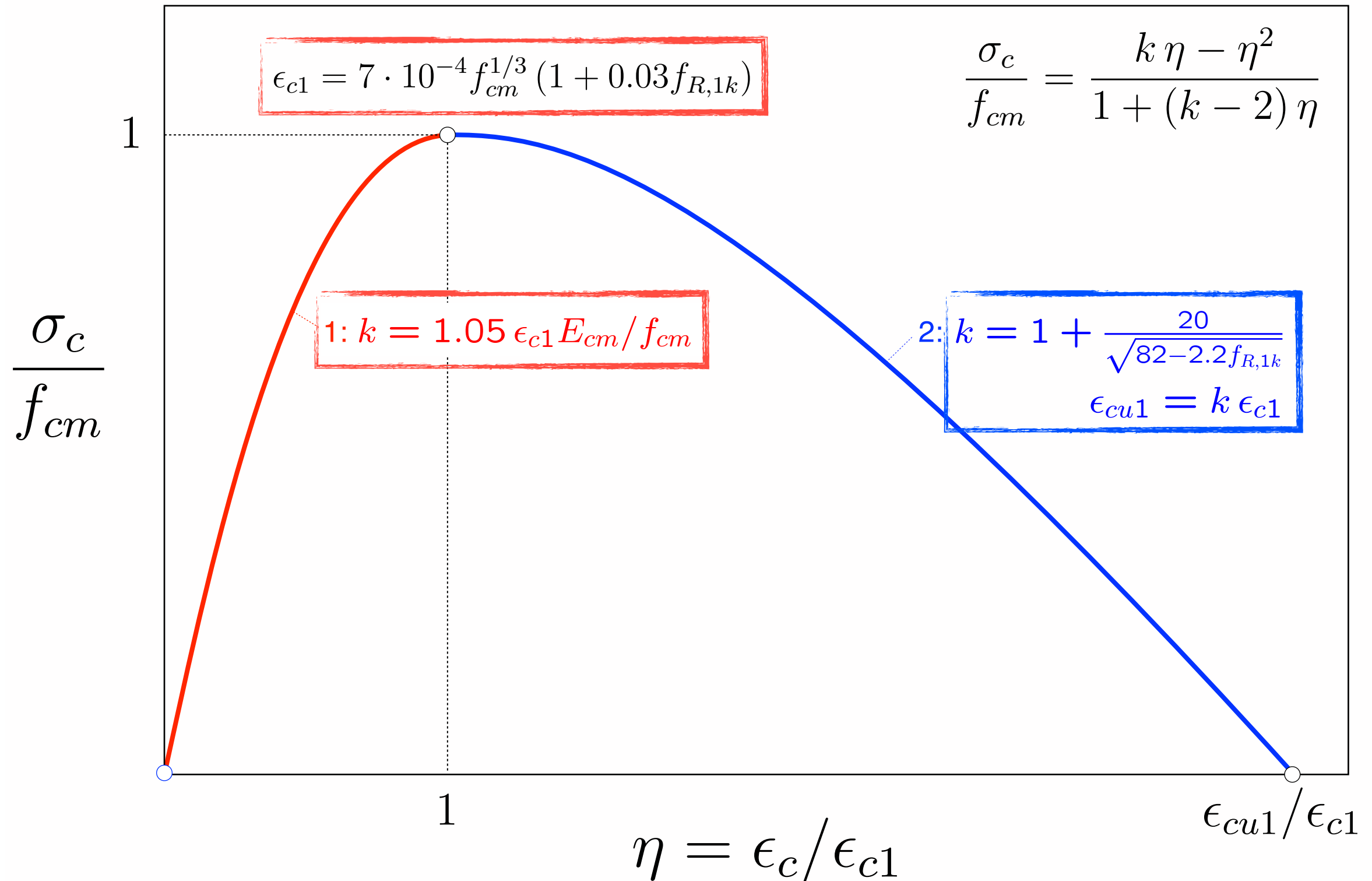
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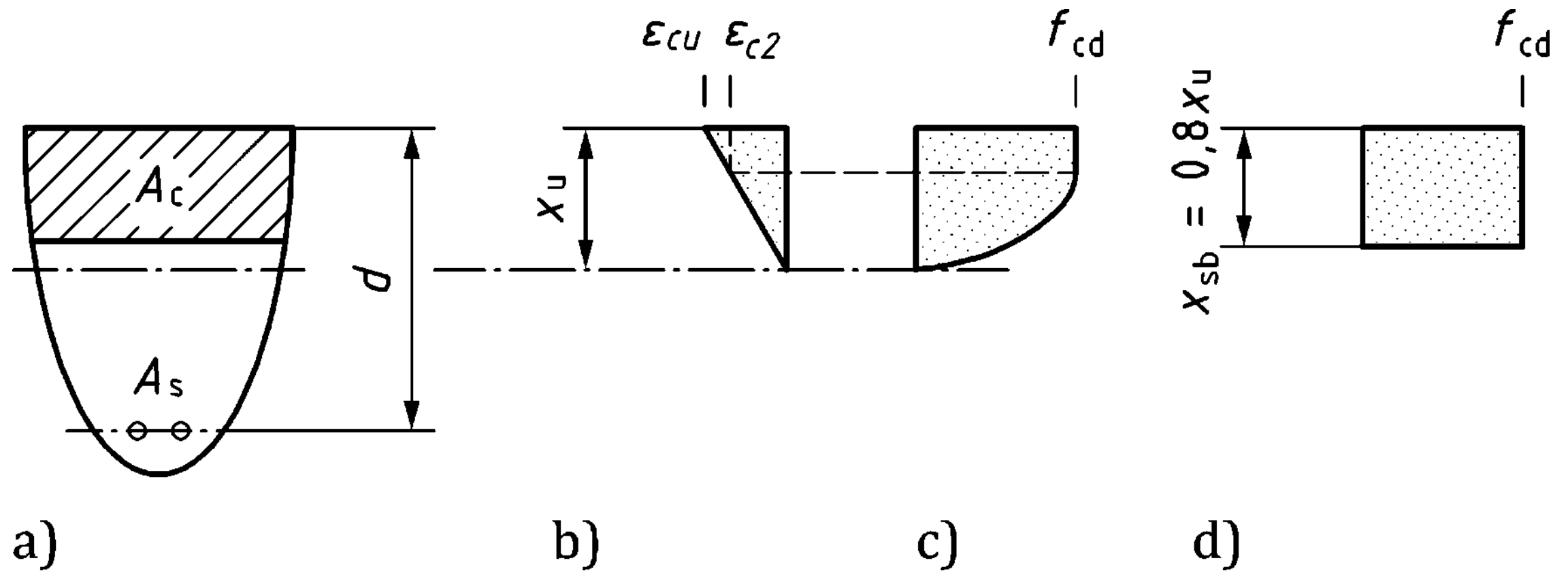
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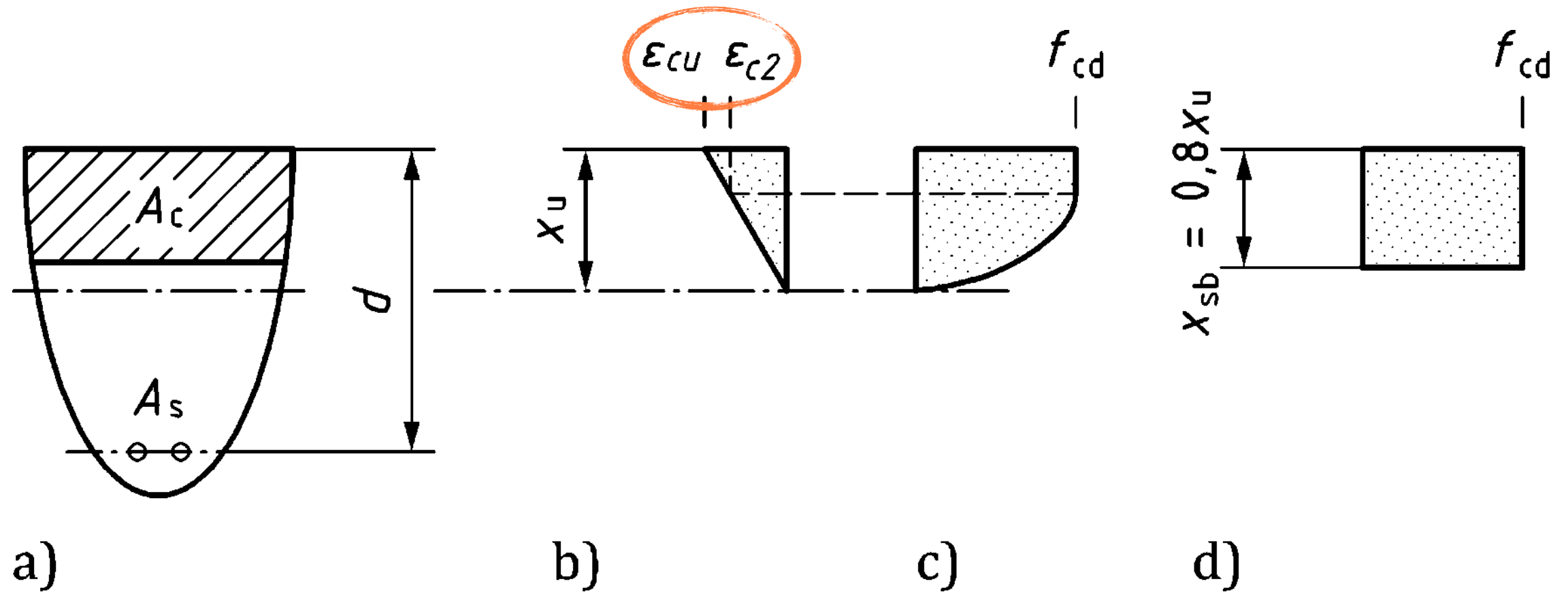


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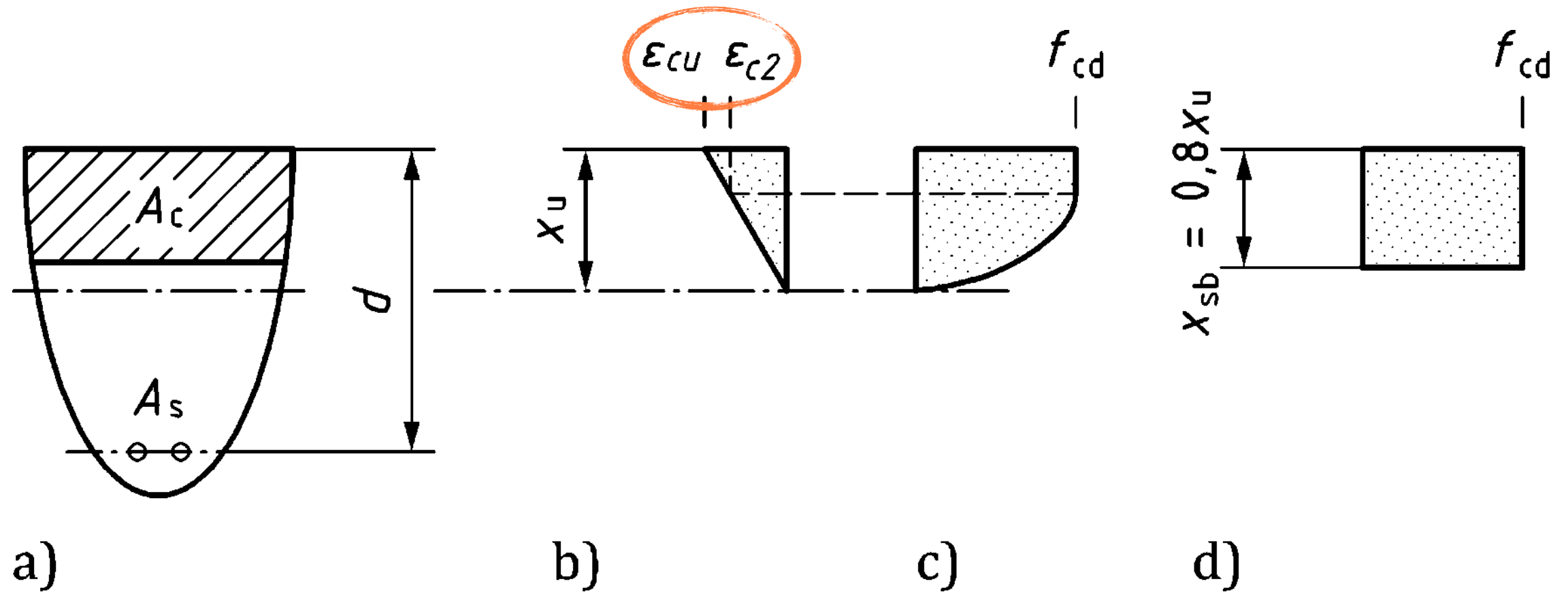
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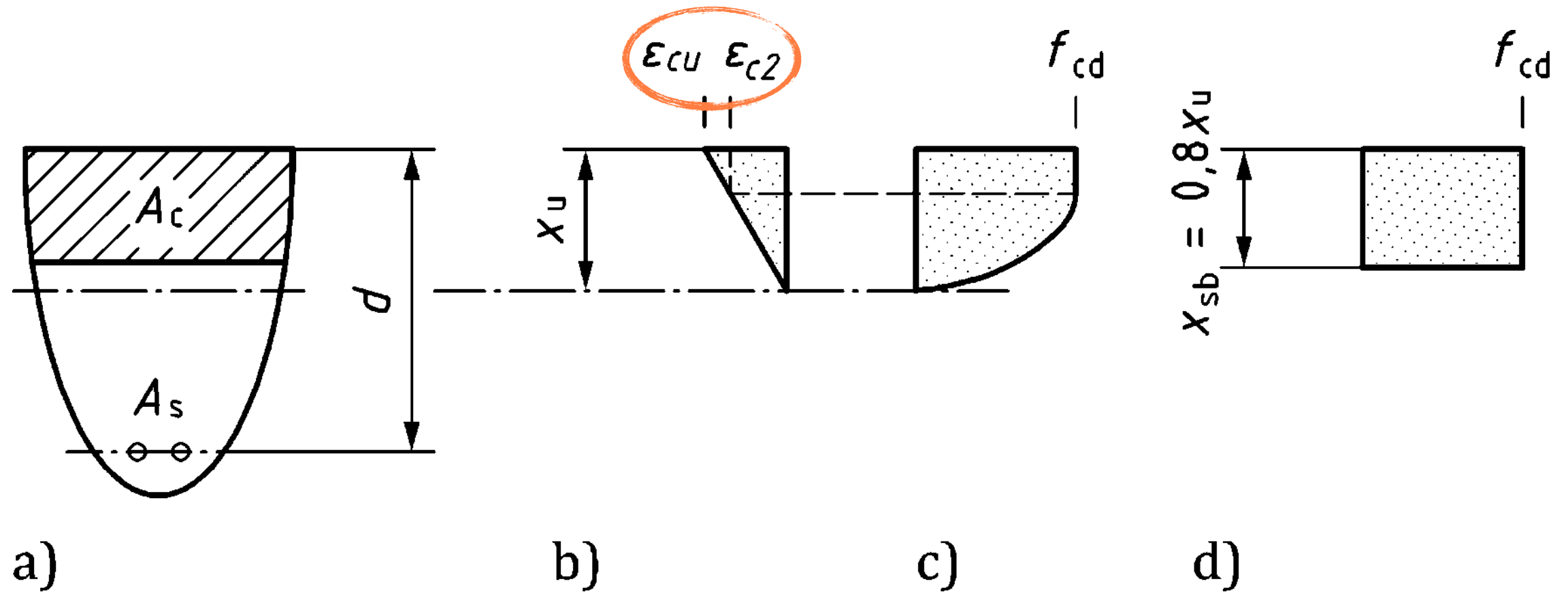
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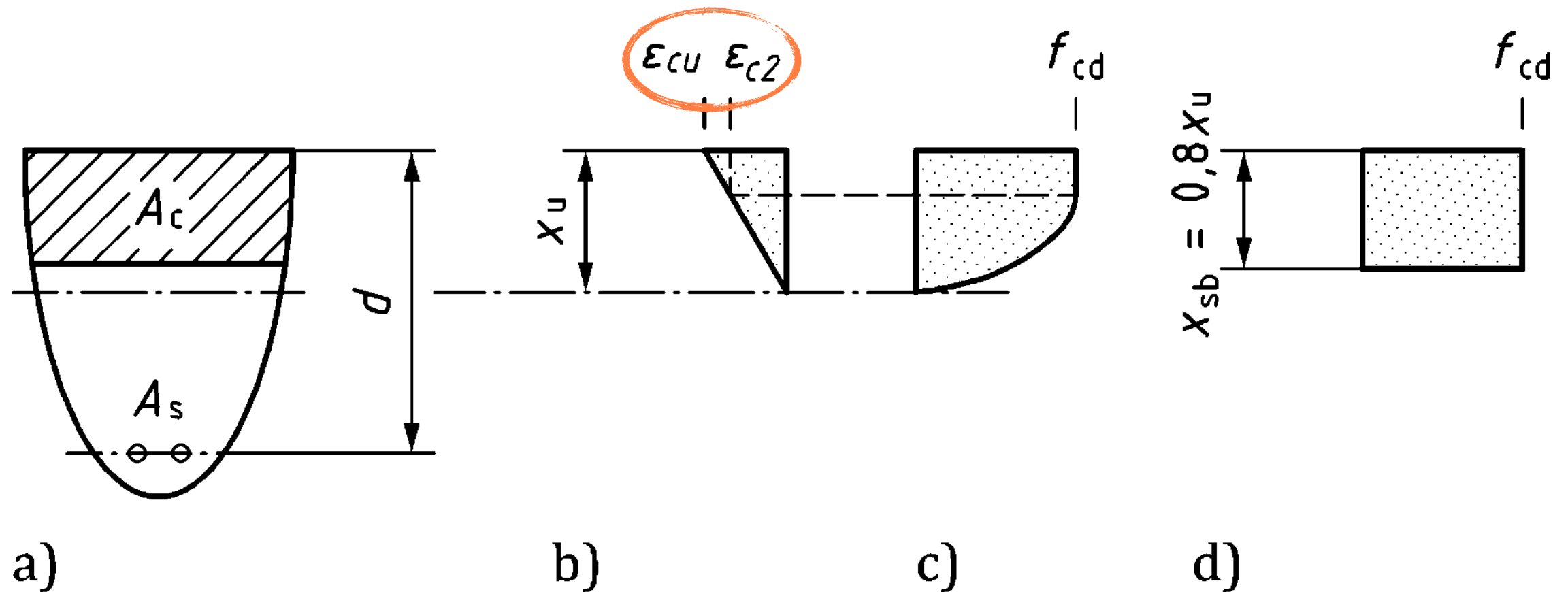
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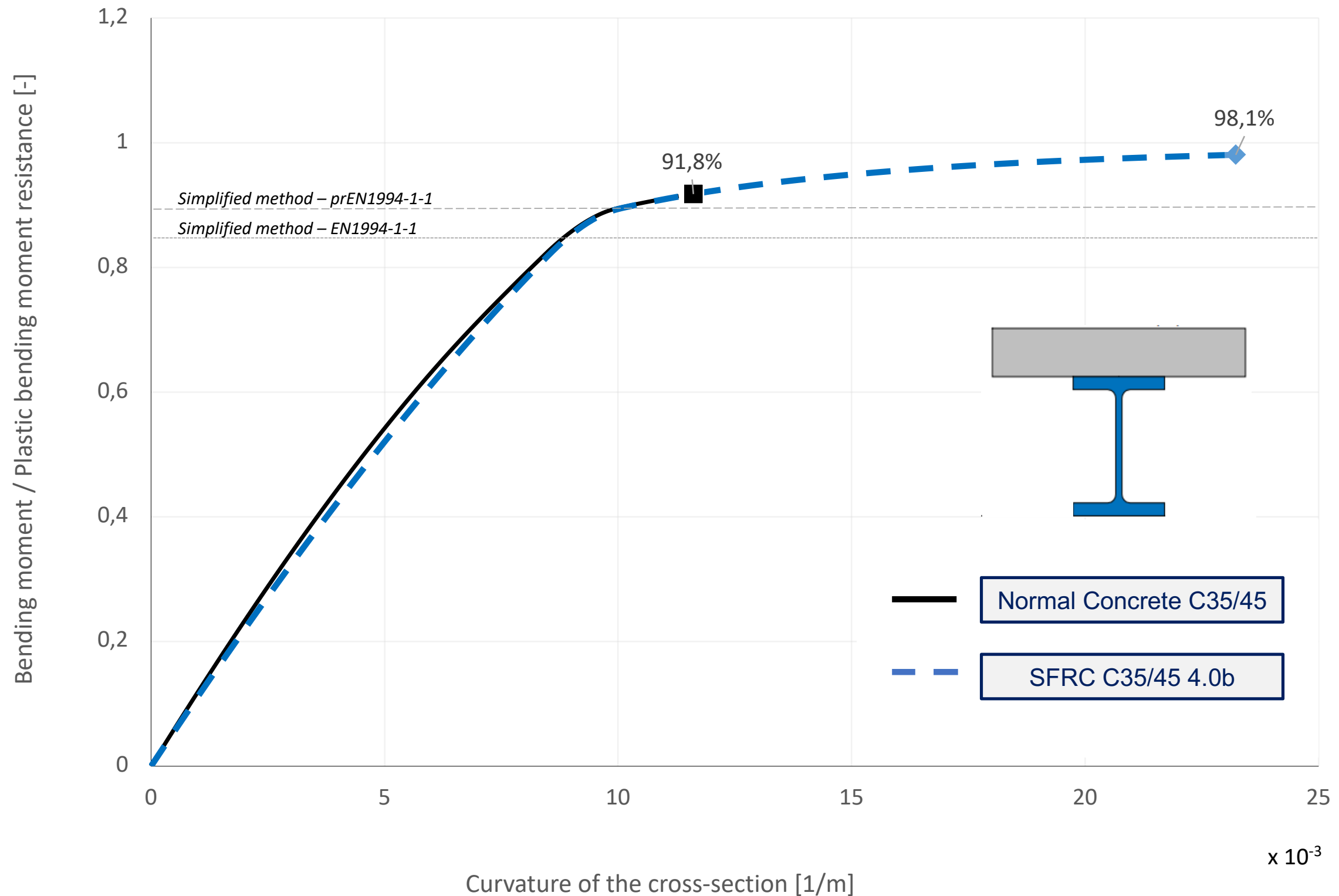
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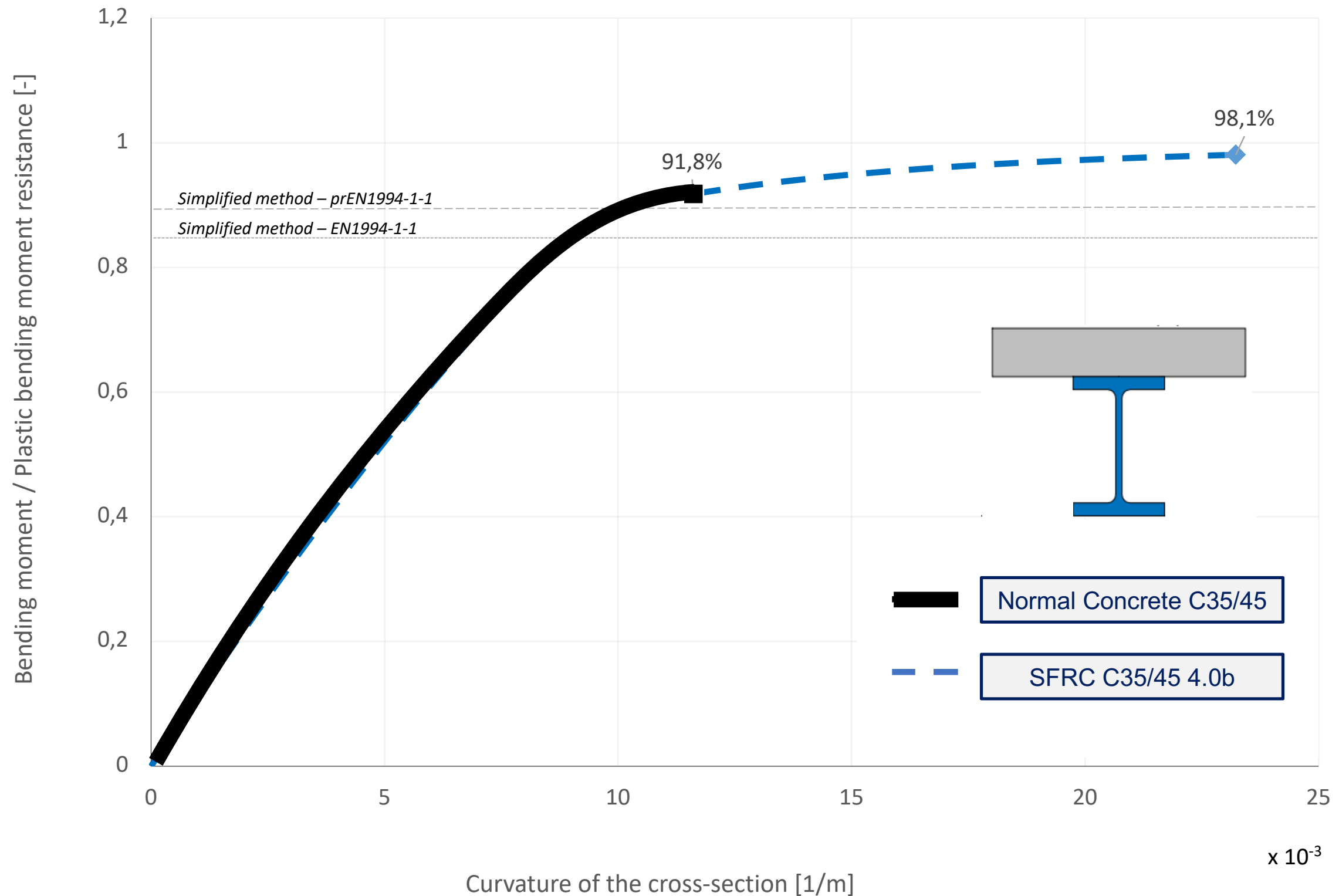
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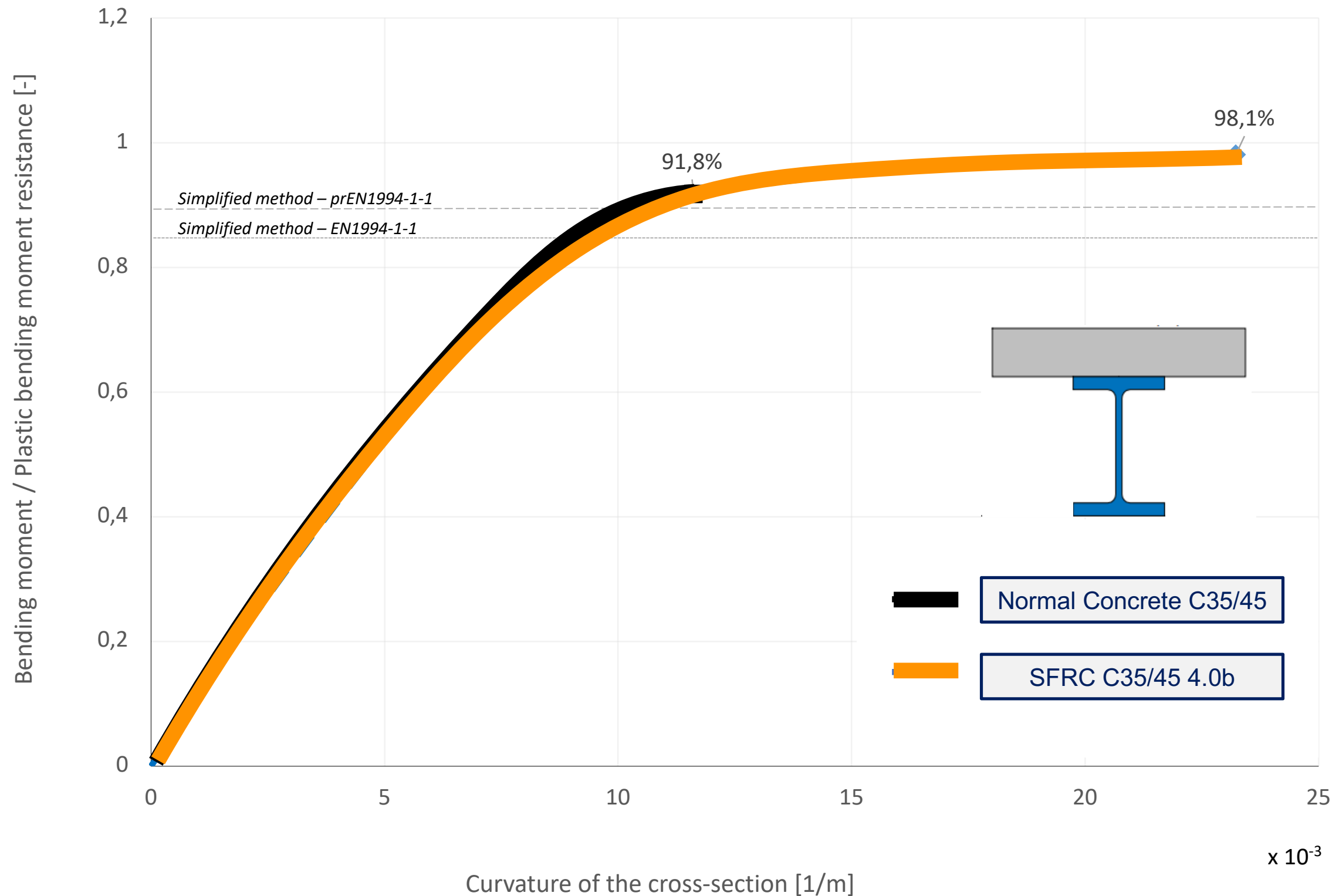
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- Compressive and flexural classes for SFRC are coupled
- The ultimate compressive strain in ULS goes up to 0.6%
- These new criteria are advantageous for composite structures



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Compressive Behaviour of Steel-Fibre Reinforced Concrete in Annex L of New Eurocode 2

*Comportamiento en compresión del hormigón reforzado con fibras de acero
según el Anejo L del nuevo Eurocódigo 2*

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ARTICLE

Steel-fibre reinforced concrete in composite structures as a mean to increase resistance and ductility

Outlook in a new generation of composite structures

In honor of the jubilarian Prof. Dr.-Ing. Wolfgang Kurz

Steel-fibre reinforced concrete is a well-known material used for decades for industrial floorings, shotcrete, or other specific applications. Its use is now spreading in structural applications as a complement or a substitute for conventional bar-reinforced concrete since the normative framework is ready to provide design approaches for several concrete applications.

Steigerung der Tragfähigkeit und Duktilität für Verbundkonstruktionen aus Stahl und Beton durch Anwendung von Stahlfaserbeton – eine neue Generation von Verbundtragwerken
Stahlfaserbeton ist ein bekanntes Baumaterial, welches seit Jahrzehnten für Industrieböden, Spritzbeton oder andere spezifische Anwendungen zum Einsatz kommt. Seine Verwendung

Zanon, R.; Schäfer, M.; Ruiz, G.; De La Rosa, Á.; Zhang, Q. (2022) *Steel-fibre reinforced concrete in composite structures as a mean to increase resistance and ductility – Outlook in a new generation of composite structures*. Stahlbau 91, H. 12, S. 801–811.
<https://doi.org/10.1002/stab.202200070>

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Thanks for your attention



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