Compressive behavior of SFRC in new EC2, Annex L

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Escuela de Caminos Ciudad Real UCLM

HA HORMIGÓN y ACERO

2nd Generation EC2 — Madrid, October 17th 2023

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1. Introduction

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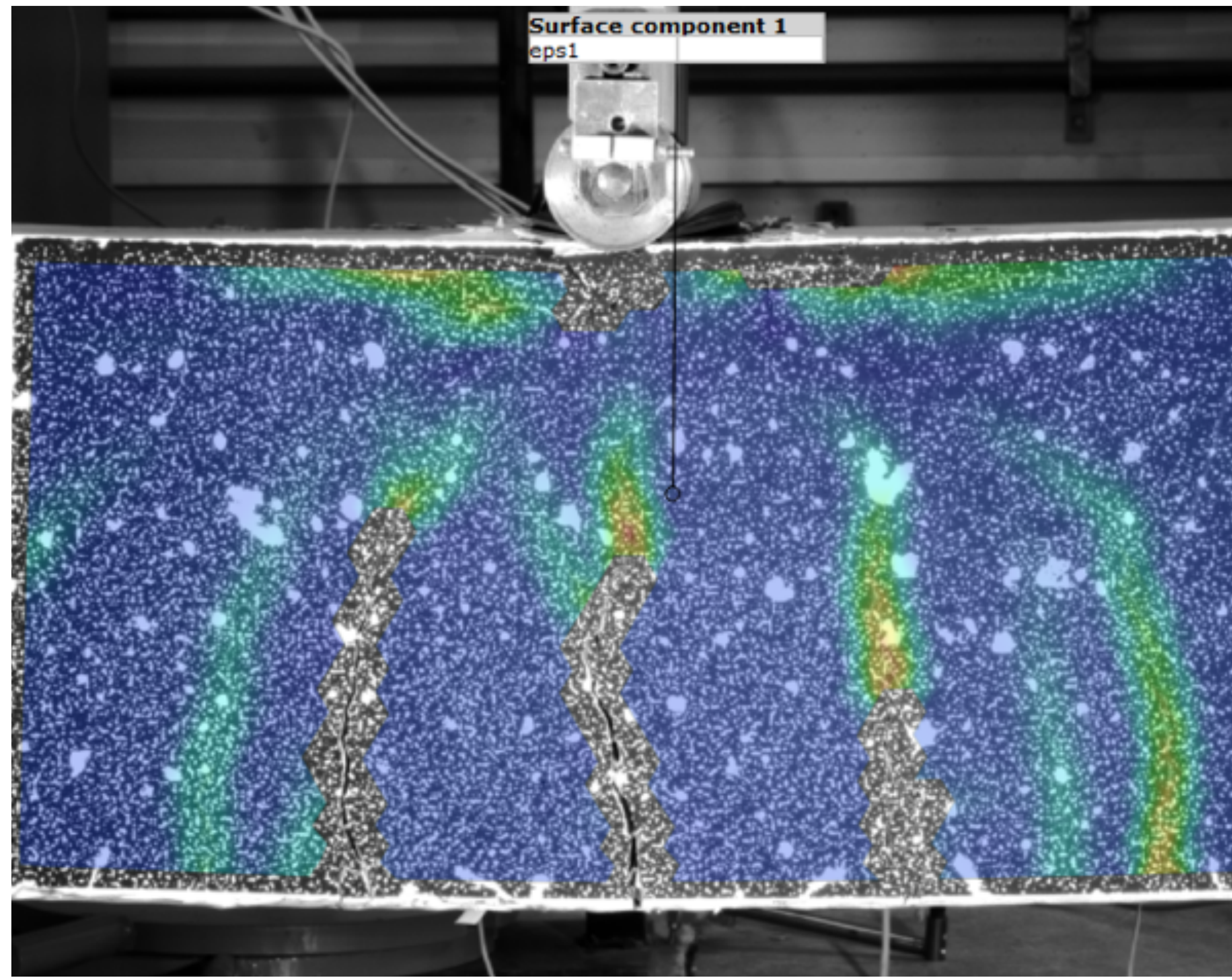

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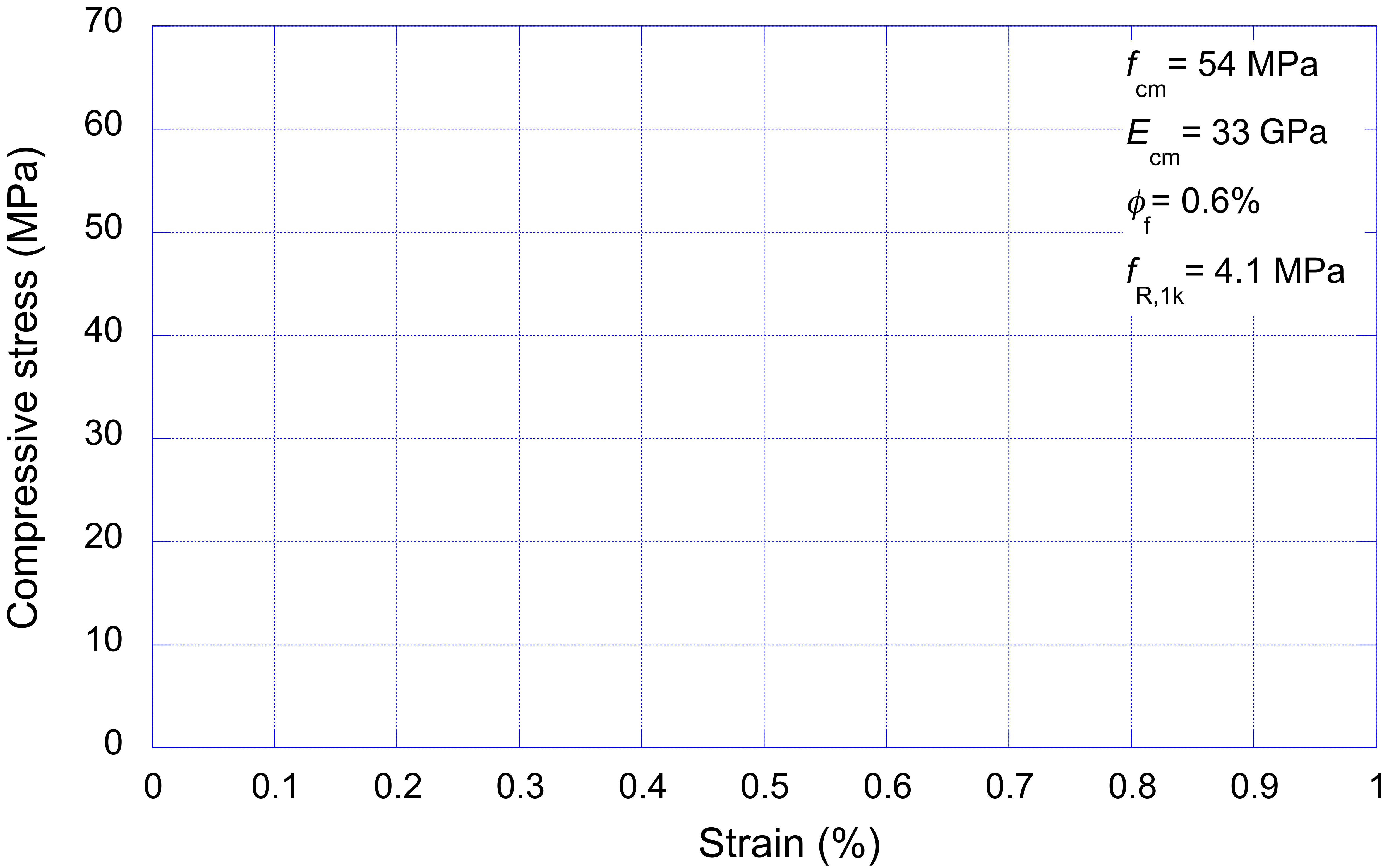

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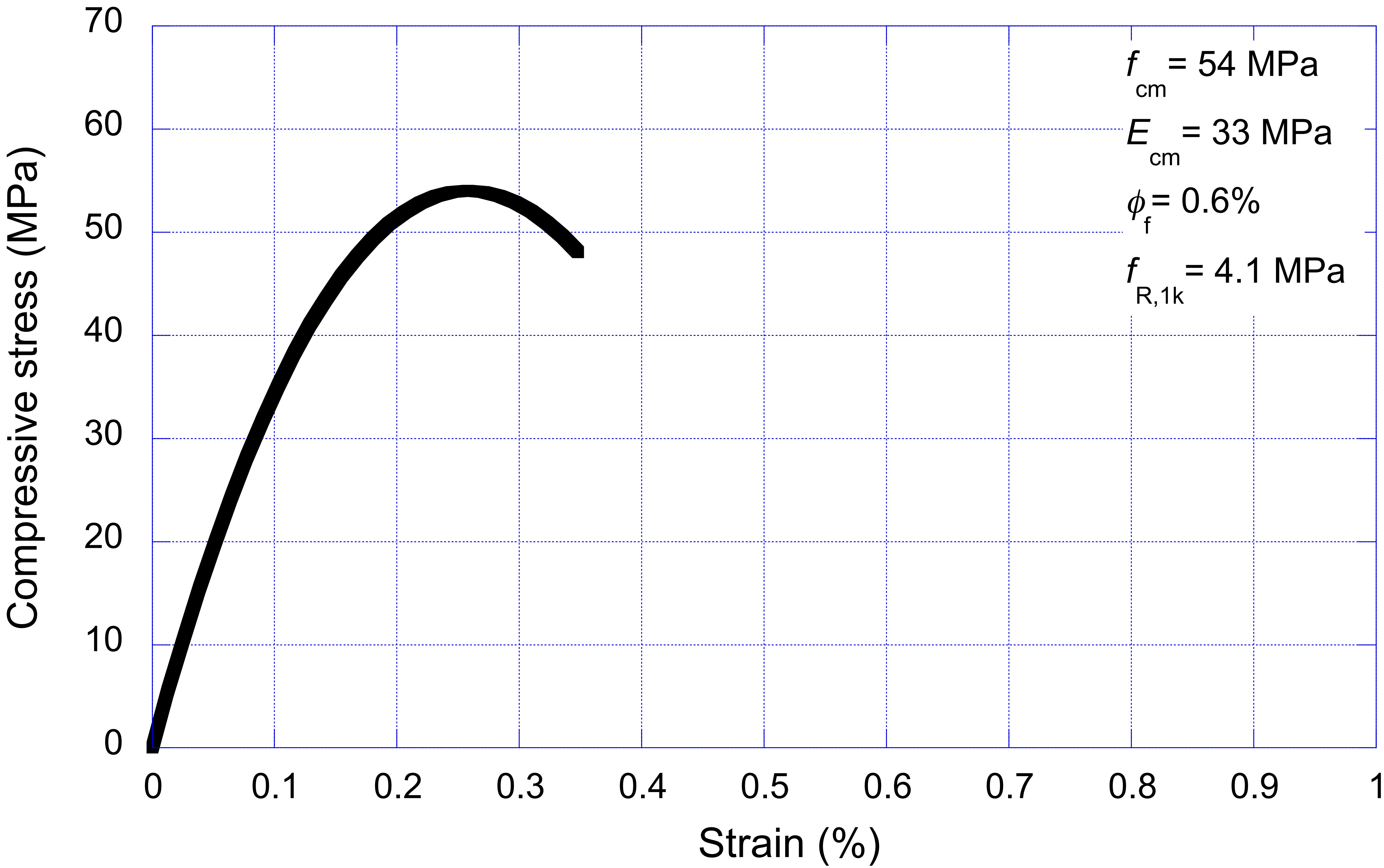

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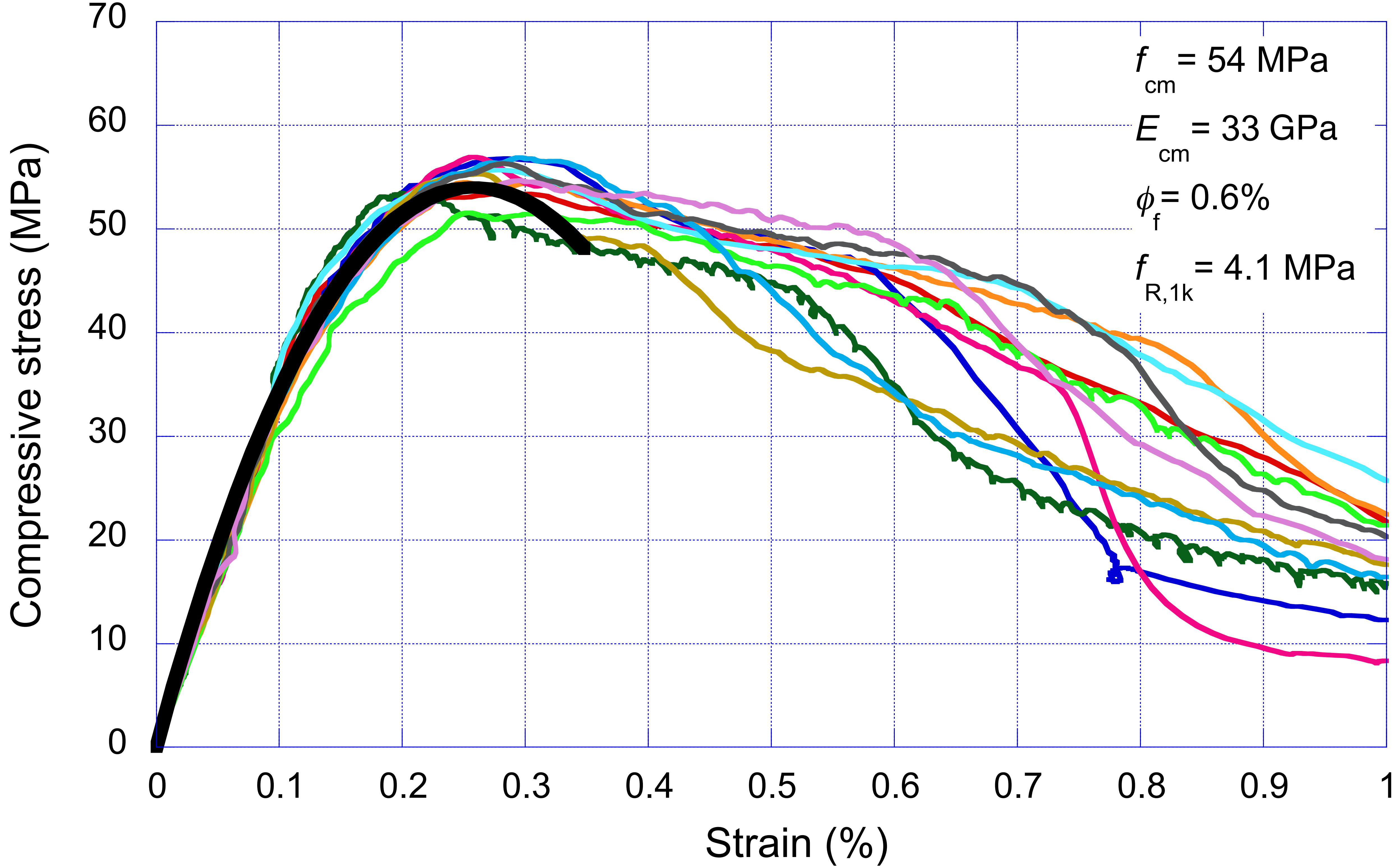

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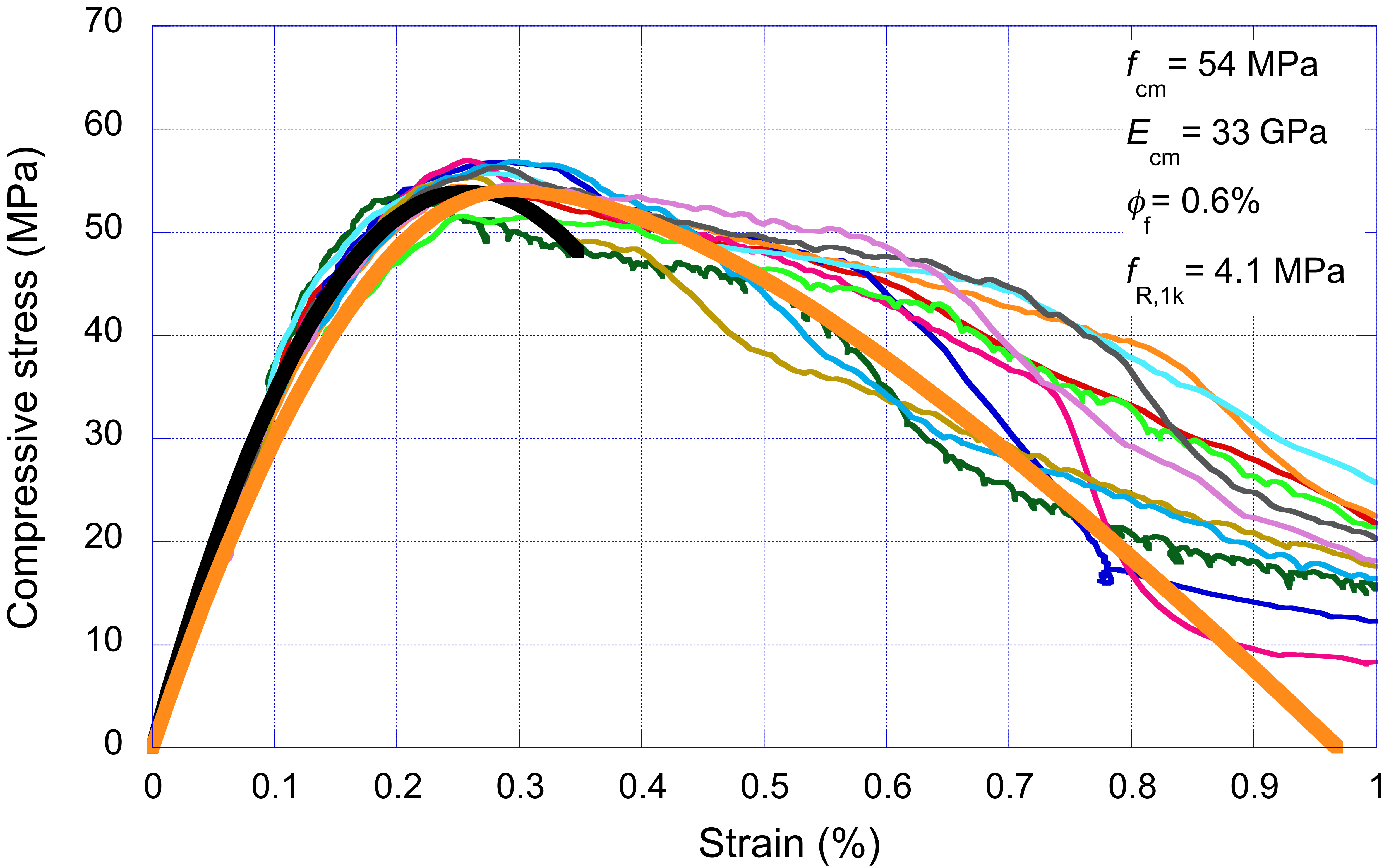

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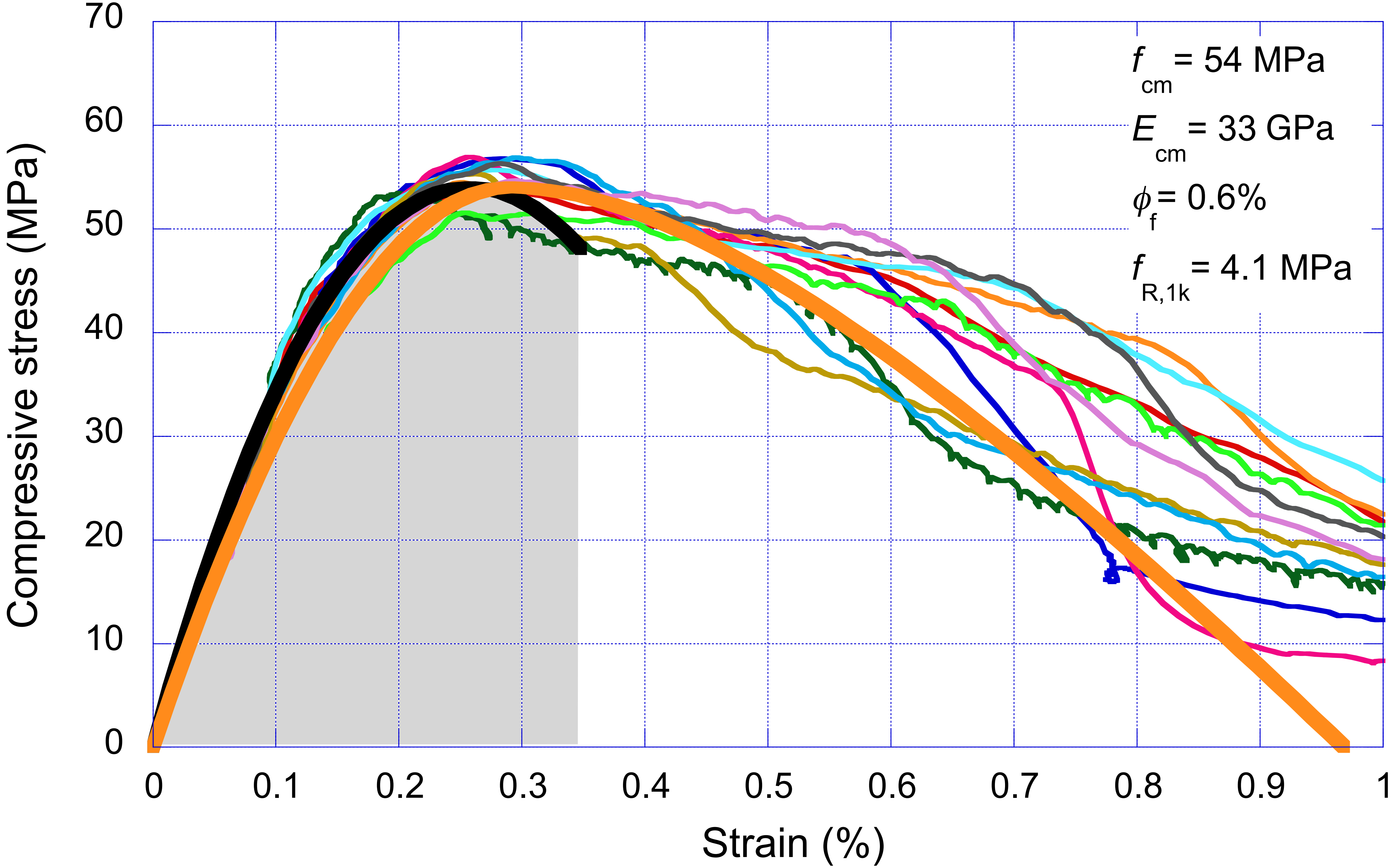

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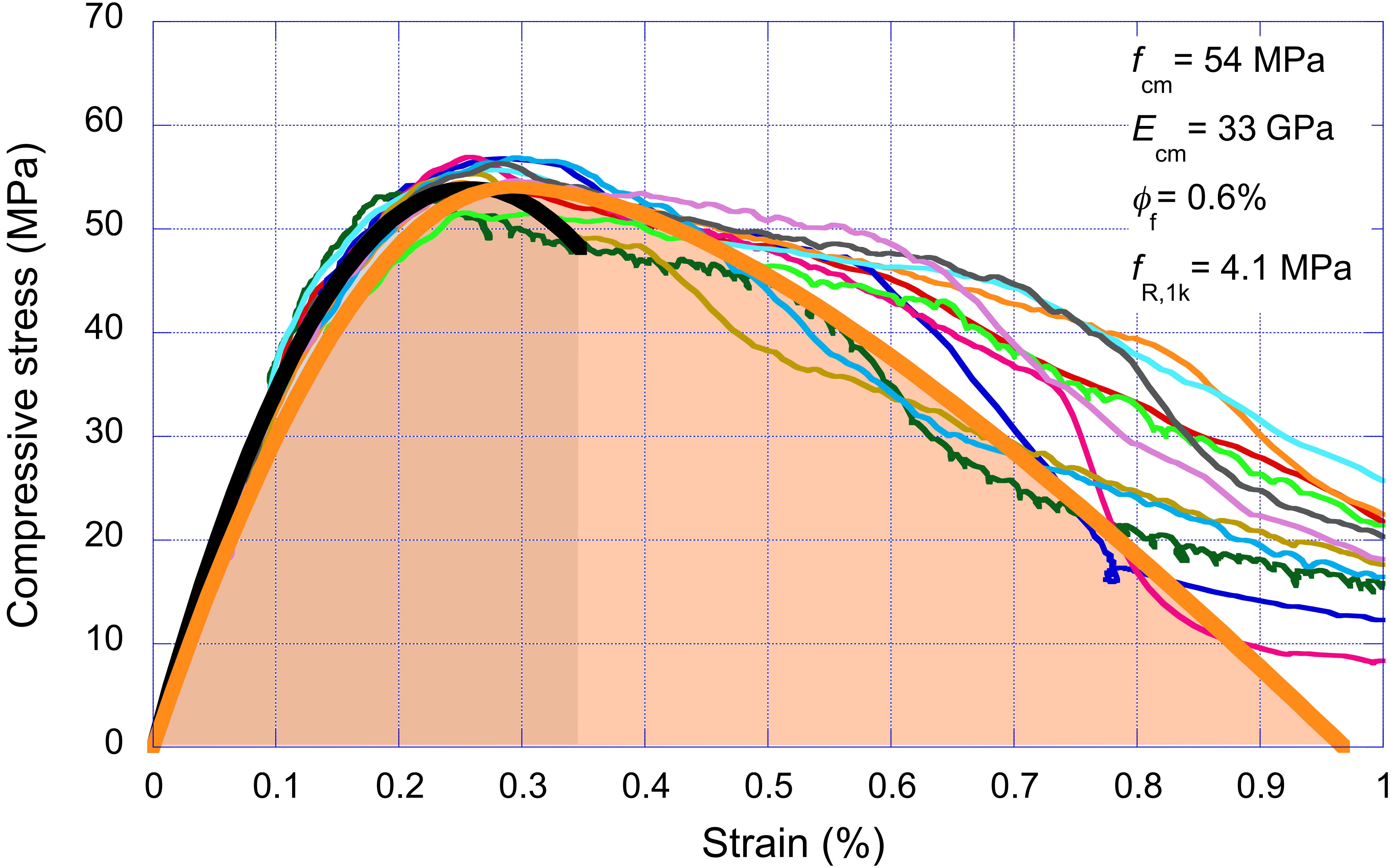

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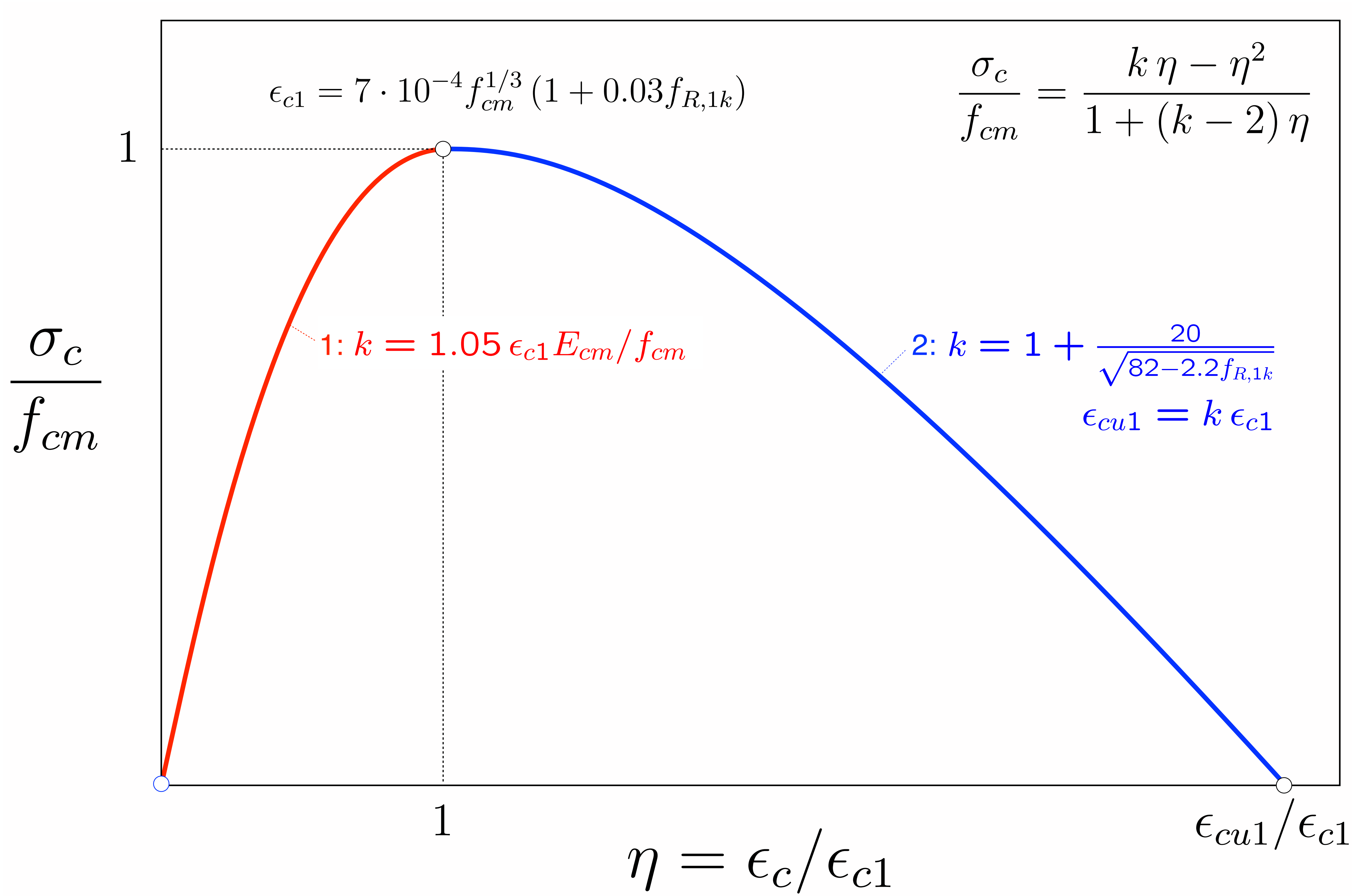

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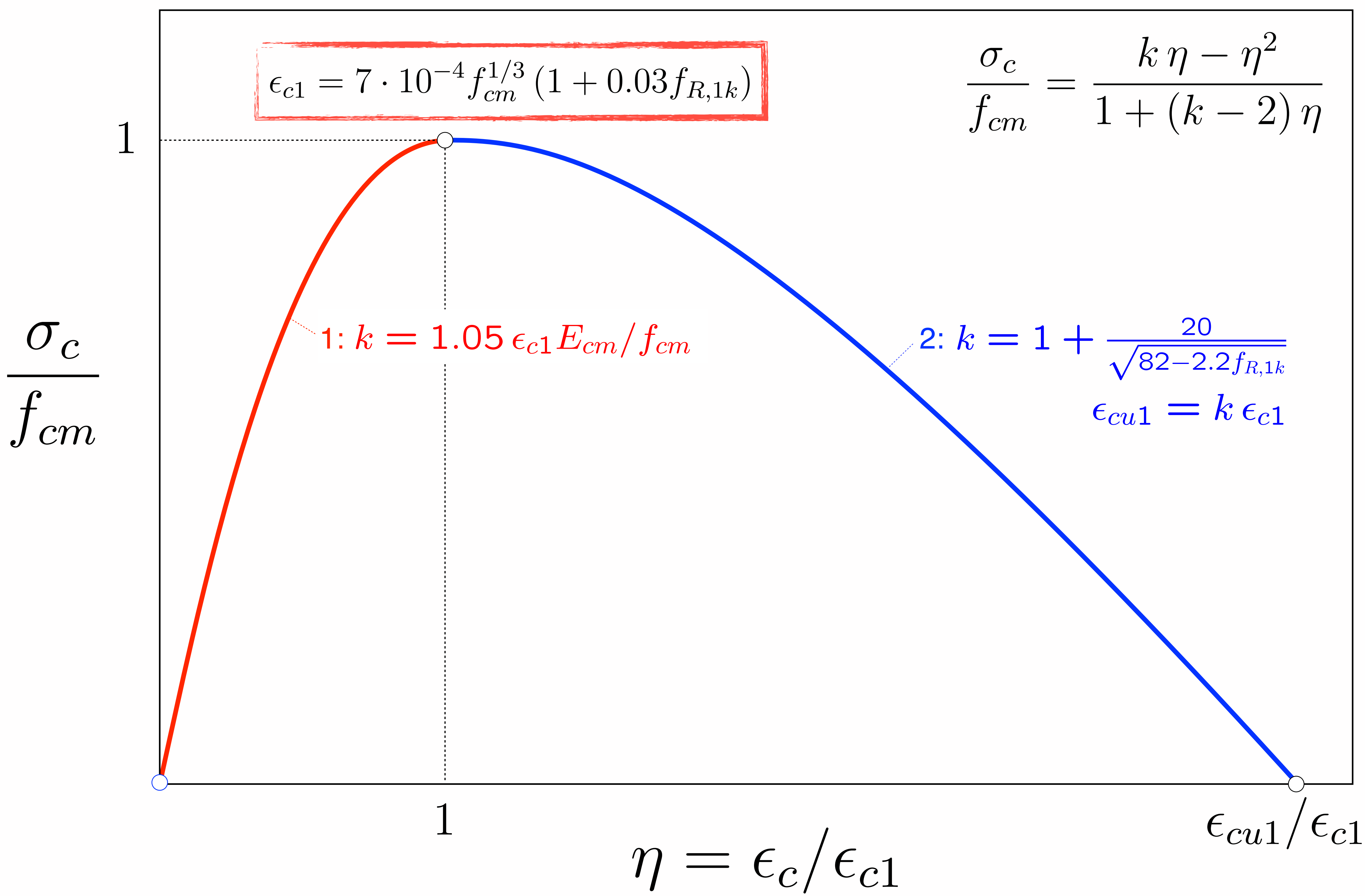

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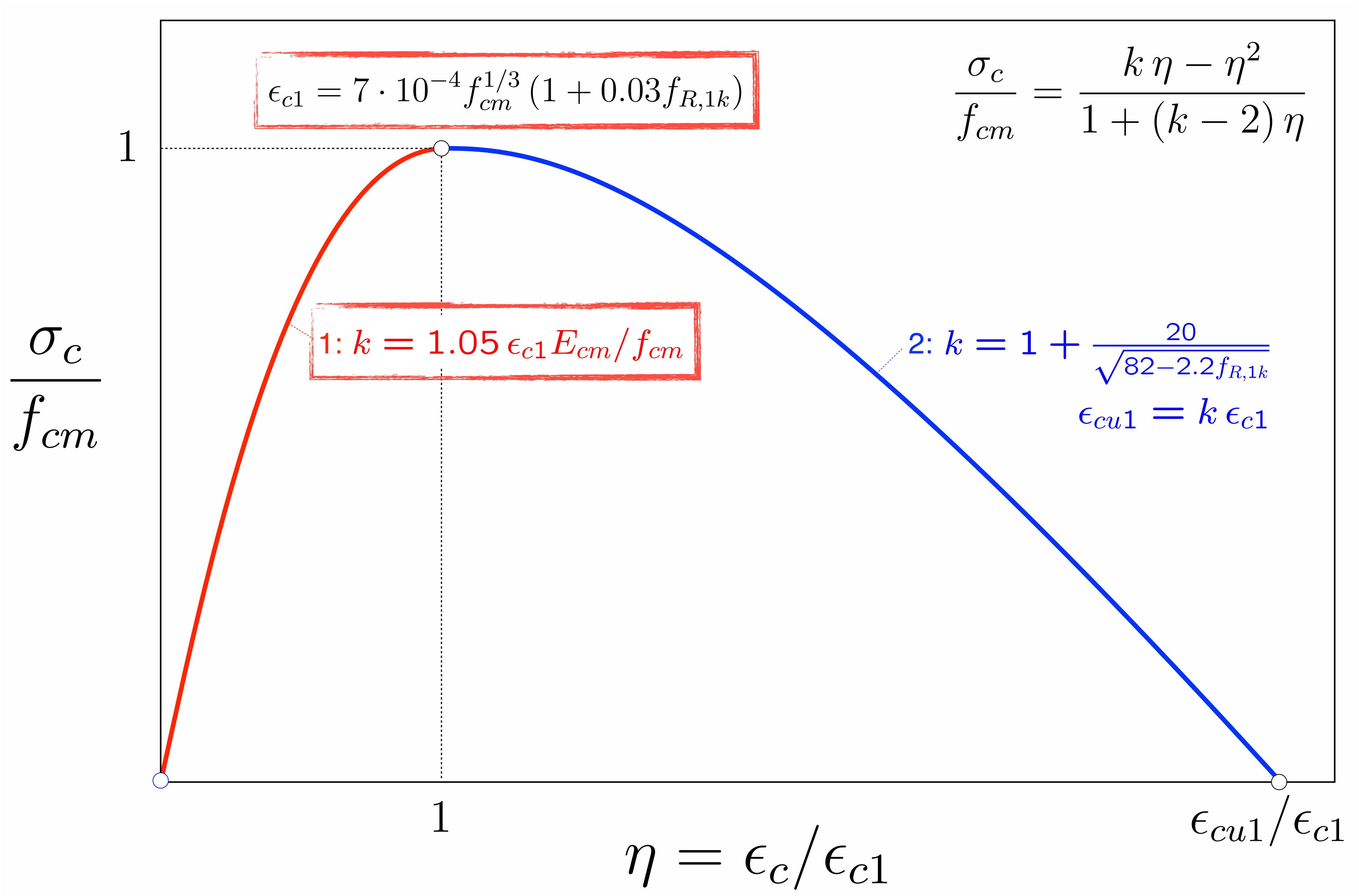

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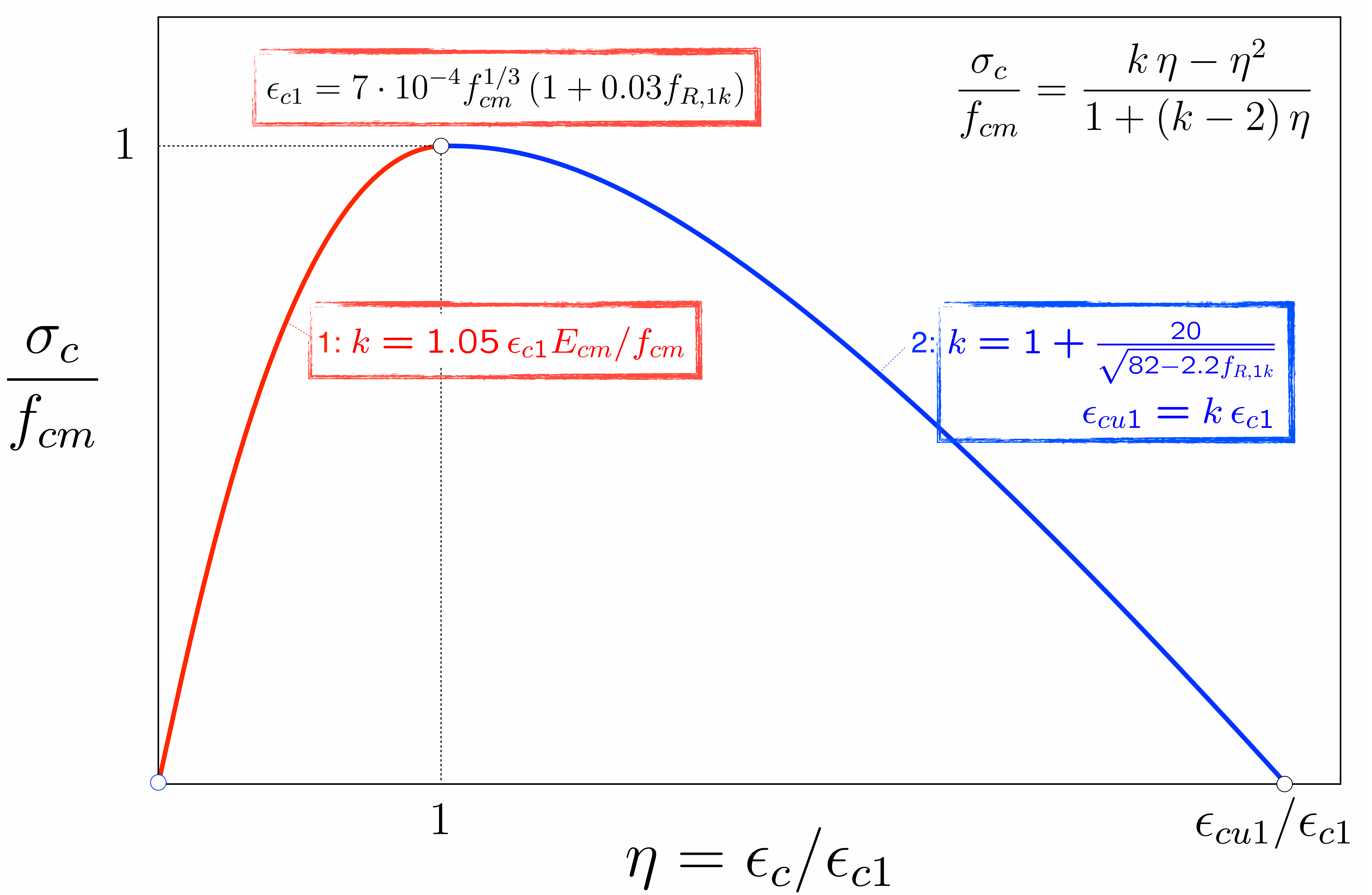

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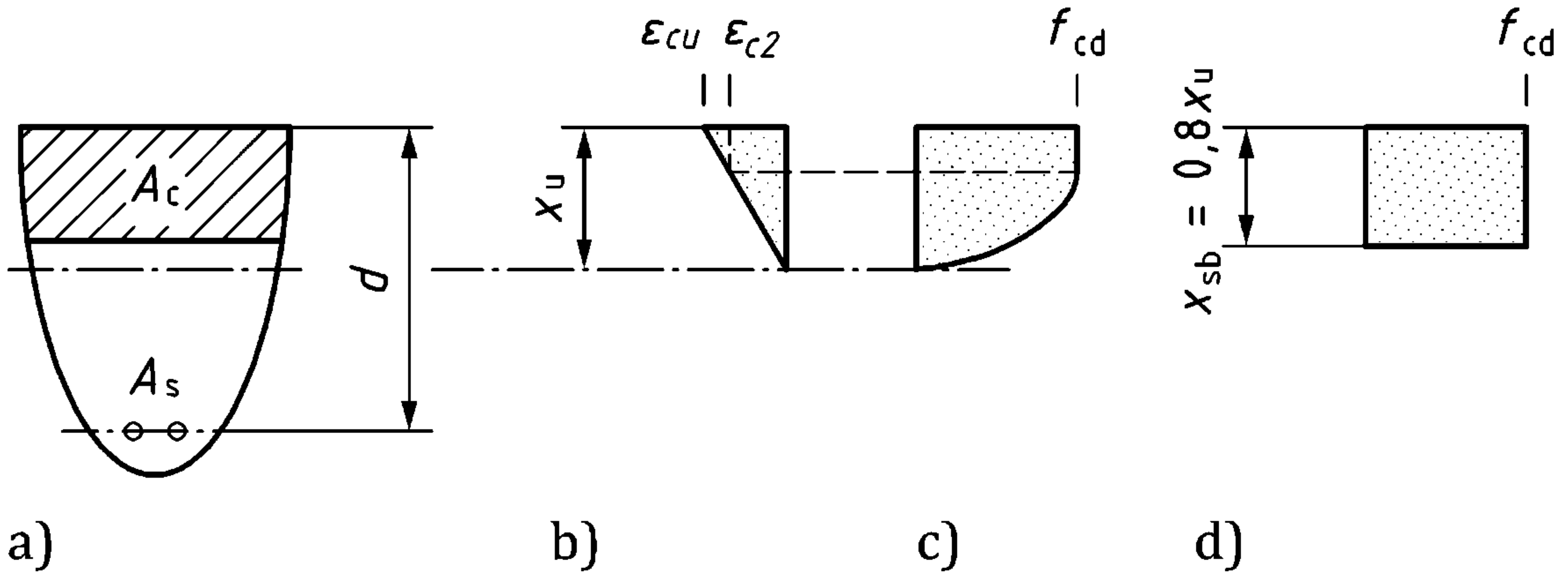

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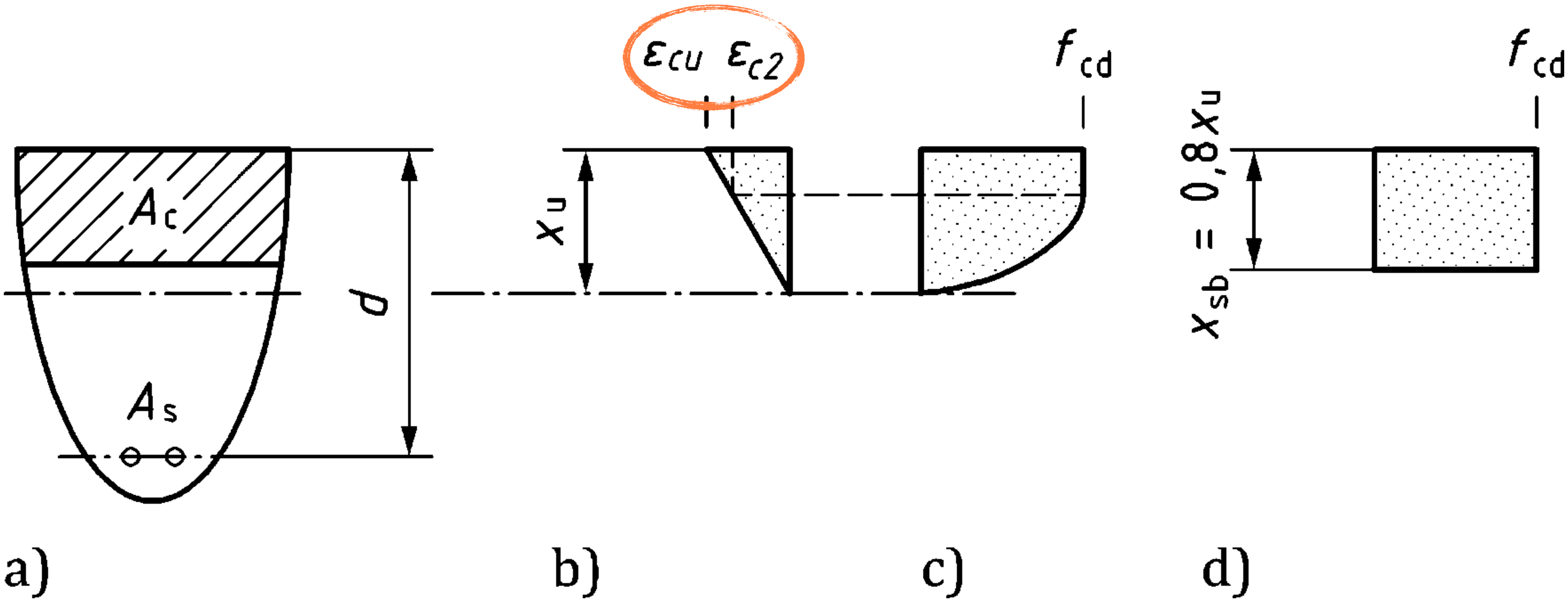

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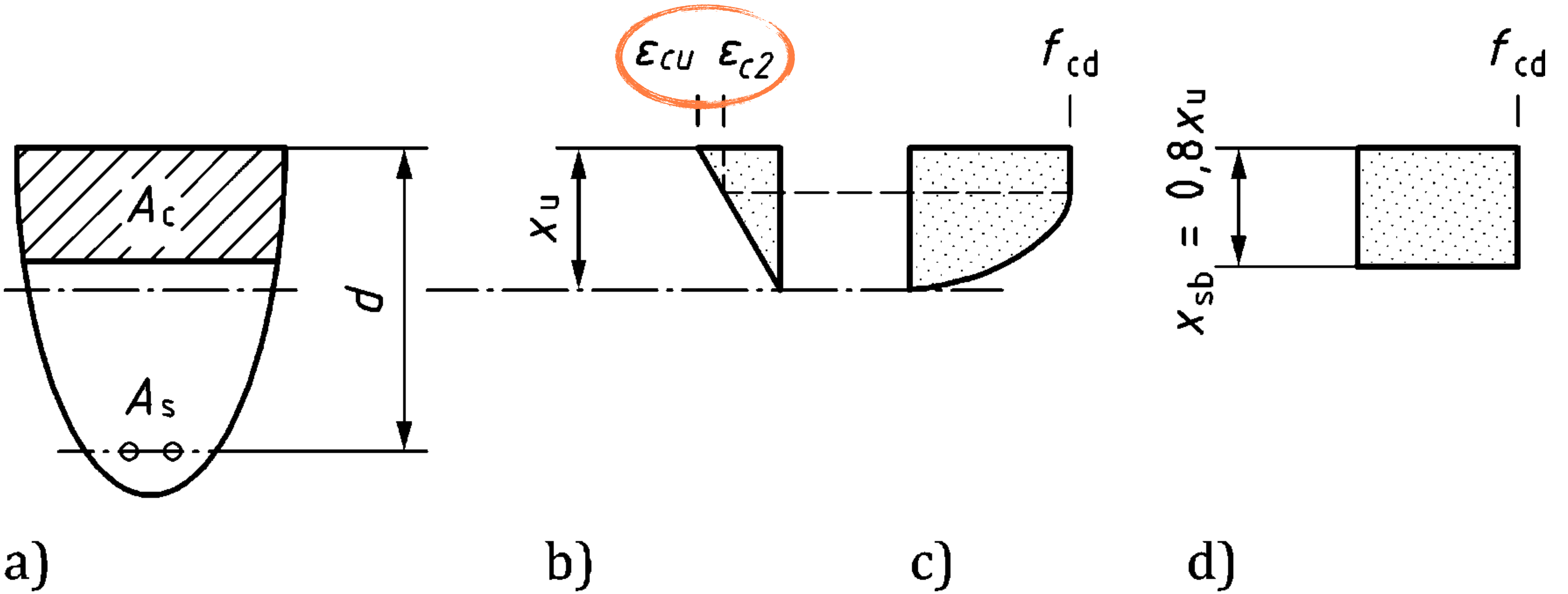

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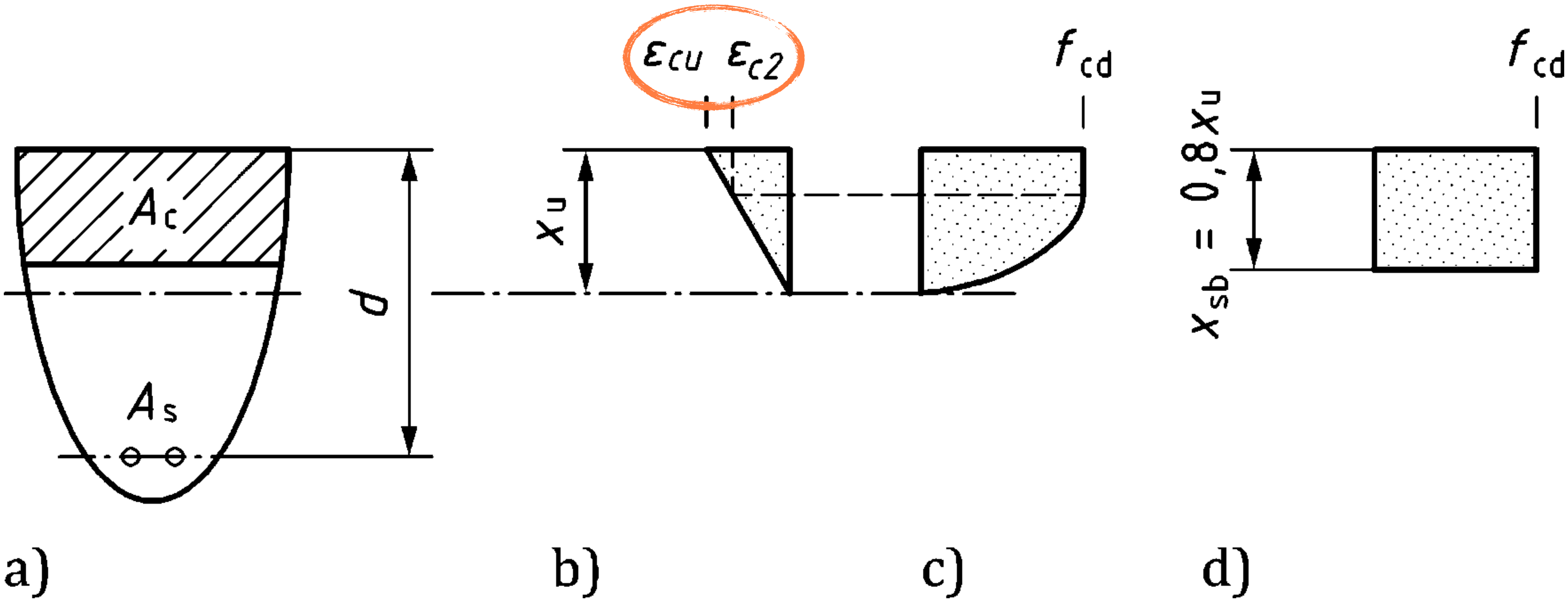

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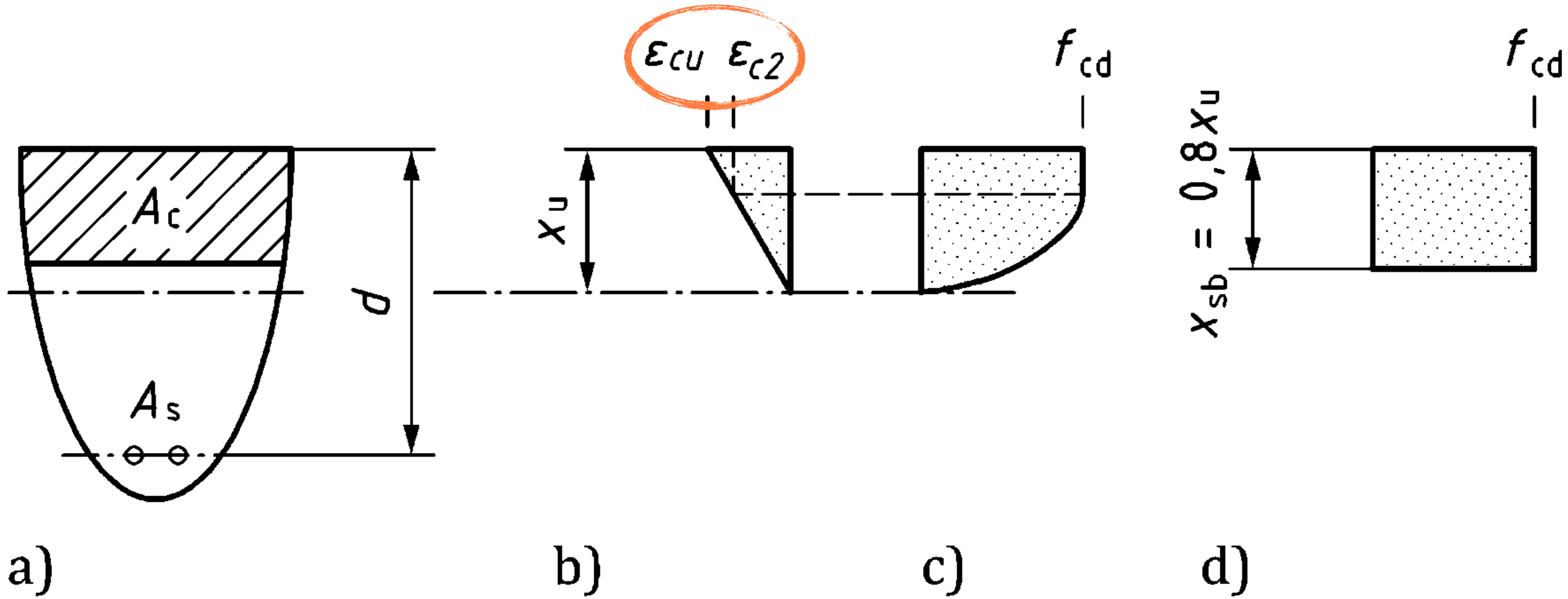

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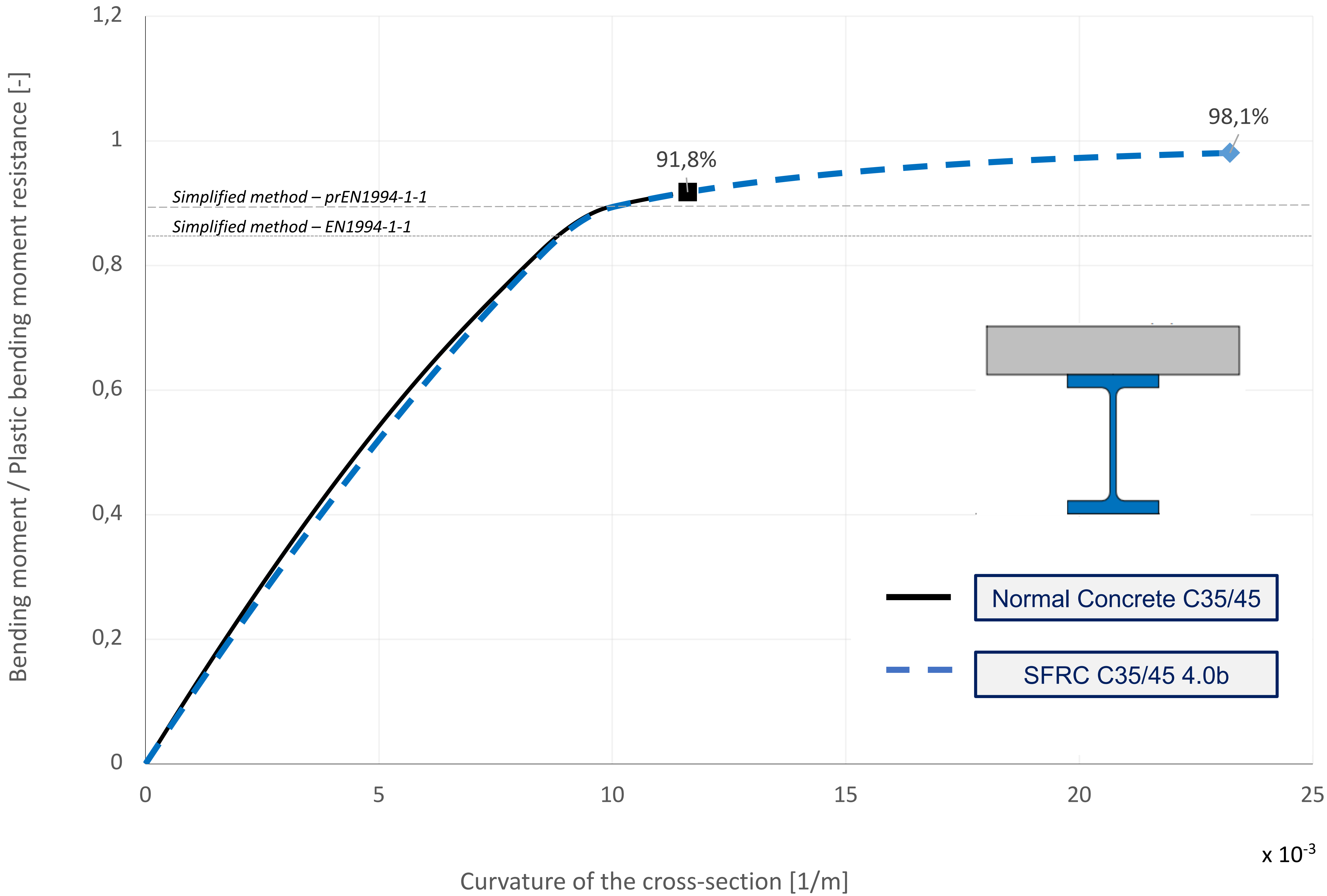
4. Application example: Composite beam



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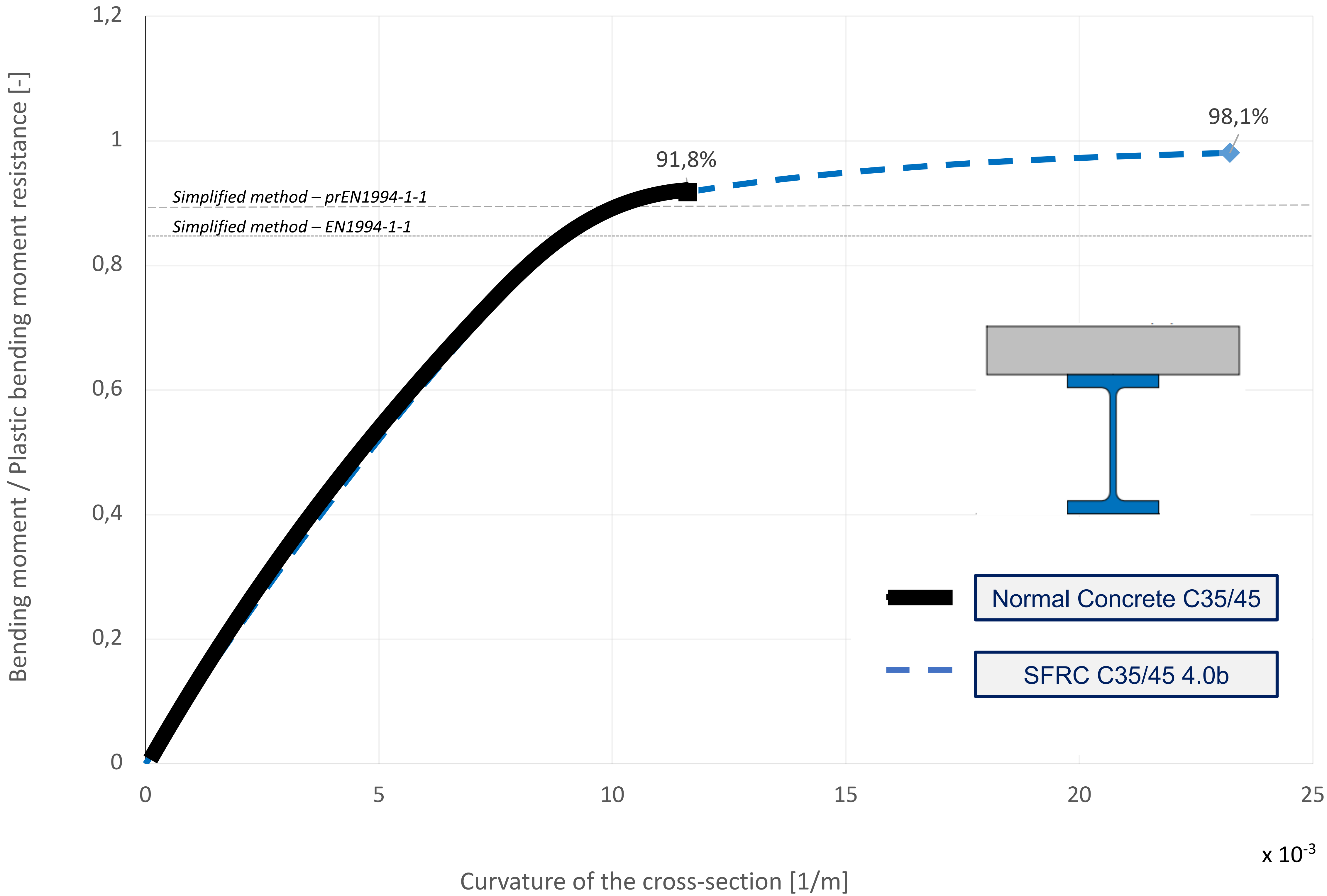

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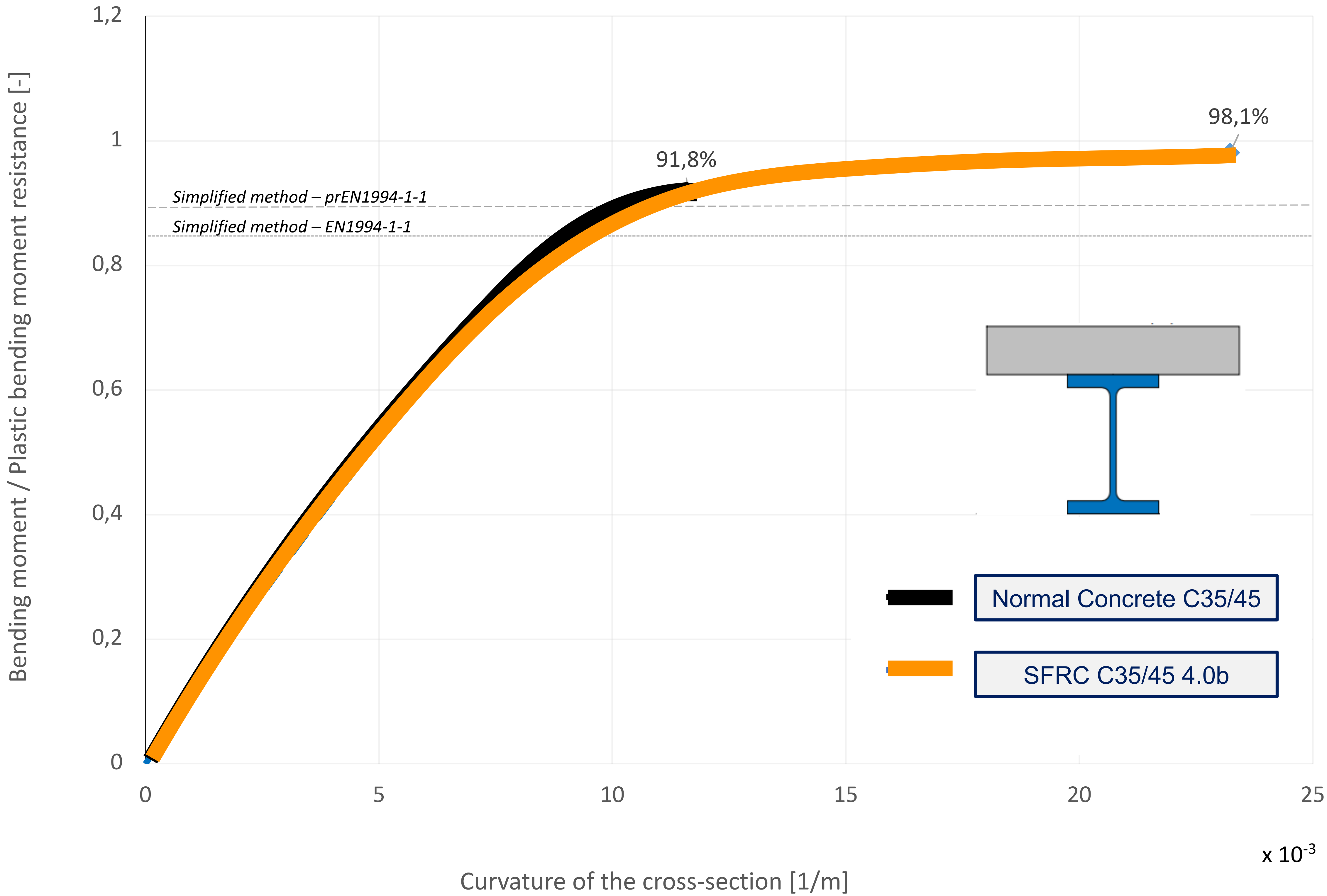

5. Conclusions

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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

References

Disponible en **www.hormigonyacero.com**

Hormigón y Acero 2023; 74(299-300):187-198
https://doi.org/10.33586/hya.2022.3092

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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References

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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

Compressive behavior of SFRC in new EC2, Annex L

Thanks for your attention

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