# Article information:

Interface strength of High-Strength concrete to Ultra-High-Performance concrete - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0141029621016849>

# Article summary:

1. The study evaluates the strength of the interface between High-Strength Concrete (HSC) and Ultra-High-Performance Concrete (UHPC) with different surface treatments.

2. The flexural test is considered more representative of adhesion than the splitting test, and surfaces with exposed coarse aggregates achieve the best results.

3. UHPC can be a suitable connecting material for precast HSC elements, but proper evaluation of roughness and surface treatments is necessary for optimal performance.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

该文章主要探讨了高强混凝土（HSC）与超高性能混凝土（UHPC）之间的界面强度，并对不同表面处理方式进行了评估。文章提到，UHPC由于其出色的力学性能和耐久性，被认为是填充HSC元素之间连接的一种选择。然而，该研究存在以下问题：

1. 偏见来源：文章没有提及任何可能存在的缺点或风险，只关注了UHPC在连接中的优势。这可能导致读者对UHPC过分乐观，忽略了其他潜在问题。

2. 片面报道：文章只考虑了不同表面处理方式对界面强度的影响，但没有考虑其他因素如温度、湿度等环境因素对界面强度的影响。

3. 无根据主张：文章声称暴露粗骨料可以获得最佳效果，但并未提供足够证据支持这一主张。

4. 缺失考虑点：文章没有考虑到使用UHPC连接可能会带来额外成本和施工难度等问题。

5. 主张缺失证据：文章声称采用第三点弯曲加载测试更能代表粘结力，但并未提供足够证据支持这一主张。

6. 未探索反驳：文章没有探讨可能存在的反驳意见或其他学者对该研究的不同看法。

7. 宣传内容：文章过于宣传UHPC在连接中的优势，缺乏客观性和平衡性。

综上所述，该研究存在一些偏见和局限性，需要更全面地考虑各种因素，并提供足够证据支持其主张。

# Topics for further research:

* Potential drawbacks or risks of using UHPC for connections
* Other environmental factors that may affect interface strength
* Evidence supporting the claim that exposing coarse aggregates yields the best results
* Additional costs and construction difficulties associated with using UHPC connections
* Evidence supporting the use of bending load tests to represent bond strength
* Alternative perspectives or criticisms of the study's findings

# Report location:

<https://www.fullpicture.app/item/7064e3dc14b05ced0bad6df9058607de>