

**TATA STEEL**



## **Celsius® 355 NH explained**

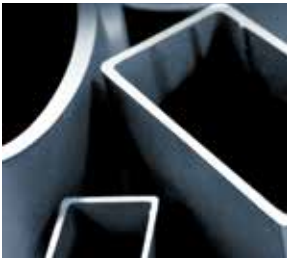
Same premium product - but now with  
a step up in certification



# SAME PREMIUM PRODUCT

We are committed to supplying the market with high quality products. That's why **Celsius® 355** hot finished hollow section is manufactured exclusively from normalised, fine grain steel. This enables you to benefit from many advantages – in both performance and processing. **Celsius® 355** is supplied with an inspection certificate type 3.1. This guarantees that our products comply with European Standard EN10210. Until now, however, our product certification has not fully reflected the quality and traceability inherent in **Celsius® 355**.

So we have decided to change our certification to highlight all of the values and benefits that make **Celsius® 355** a perfect product for specific and demanding requirements. This change to certification is designed to enable our customers to reap the benefits of our ongoing development of **Celsius® 355**.



## How has the certification changed?

Until now, **Celsius® 355** products have been certified in compliance with EN10210:S355J2H. From now on, these same products are being certified to show that they comply with the more specific and exacting standard EN10210:S355NH.

Although the certification is changing, there is no change to the product currently supplied.

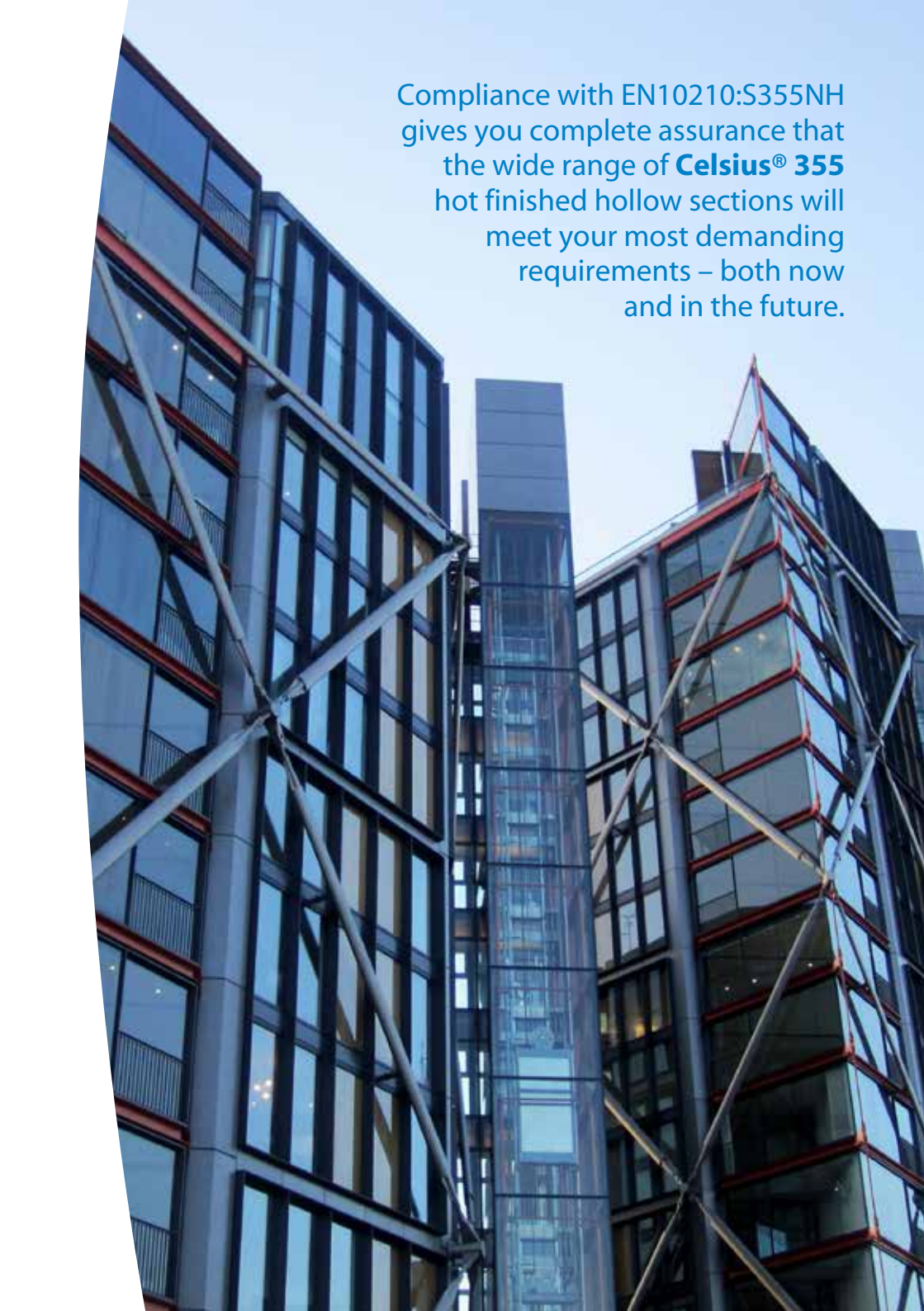
This new EN10210:S355NH certification provides a guarantee that **Celsius® 355** hot finished hollow section is manufactured from normalised, fine grain steel. This steel offers improved performance over other types of steel that can also be certified under the more wide-ranging EN10210:S355J2H standard.

## How does the change improve things for me?

The change to EN10210:S355NH certification means:

- when you specify **Celsius® 355** to EN10210:S355NH you are eliminating the risk of being supplied with other hollow sections that may not meet your requirements
- by simply referring to your inspection certificate, you can easily and readily verify that your **Celsius® 355** material meets your exact specification
- you can rest assured that you are using a normalised, fine grain steel with all the performance and processing benefits that this provides

We always went the extra mile with our previous certification. In the past, **Celsius® 355** inspection certificates have included a comprehensive chemical analysis and proof of testing - for full visibility and traceability. Our new inspection certificates will continue to include this information.



Compliance with EN10210:S355NH gives you complete assurance that the wide range of **Celsius® 355** hot finished hollow sections will meet your most demanding requirements – both now and in the future.

# What are the benefits of EN10210:S355NH certification?

The easiest way to show this is by comparing some of the key differences between the old-style EN10210:S355J2H certification for **Celsius® 355** and the new EN10210:S355NH certification.

## Celsius® 355

### Now certified to EN10210:S355NH

### EN10210:S355J2H

Guaranteed normalised rolled for a fully stress-relieved product (including around the perimeter) with uniform grain structure and hardness values and stable and uniform mechanical properties across the whole section. Means **Celsius® 355** is easy to fabricate, weld and manipulate

No guarantee that the product is fully normalised. Can mean the products are not fully stress-relieved and may have more residual stress – resulting in less uniform mechanical properties

Guaranteed fine grain steel for a consistent, superior steel product

Can include non-alloy steel

More energy absorbed at lower temperatures (40J @ -20°C) – making it ideal for demanding applications including offshore structures

Energy absorption guaranteed only to 27 J @ -20°C

Tighter corner profiles (2T) for improved aesthetics. Also provides good preparation for welding

Corner profiles may be up to 3T (similar to cold formed sections)

Comprehensive analysis of 14 chemical elements to provide you with full visibility and traceability

Only five chemical elements need to be revealed on inspection certificate

Guaranteed lower CEV of 0.43 for better weldability

CEV 0.45

Within this standard, the NH grade meets and exceeds the J2H specification - thus ensuring that all the features and benefits of both NH and J2H are met with the new specification.

Use of Celsius NH allows all the benefits of the product to be realised and ensures full compliance with the most stringent execution class for EN1090.

[www.tatasteel.com](http://www.tatasteel.com)

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