



# YP690N/mm<sup>2</sup> Class Heavy Gauge Steel Plates with Extreme Low Temperature Toughness for Offshore Structures



In recent years, development of petroleum resources has been promoted in response to increased global energy demand. With the construction of larger scale

thereby satisfying the target properties.

▲ 鋼材の製造工程 (1)

▲ 鋼材の製造工程 (2)

The chemical compositions and mechanical properties of the developed YP690N/mm<sup>2</sup>

▲ 鋼材の製造工程 (3)

The developed steel has received approval as AB FQ70 from the ABS and VL FO690 from the DNV GL.

As development of petroleum resources expands into arctic seas and deepwater areas to meet future increases in energy demand, ever-higher needs for high performance steel plates for offshore steel structures are forecast, and further increases in application of the developed steel are expected.

References

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- 2) Ichimiya, K.; Fujiwara, T.; Suzuki, S. Offshore Structural Steel

- Plates for Extreme Low Temperature Service with Excellent HAZ Toughness. JFE Technical Report. 2015, no.20, p.20–25.
- 3) YP690MPa Class Heavy Gauge Steel Plates with Low Temperature Toughness for Offshore Structures. JFE Technical Report. 2015, no.20, p.70–72.
- 4) Kitsuya, S.; Ichimiya, K.; Hase, K.; Hayashi, K.; Terazawa, Y.; Kinugawa, T. YP690 N/mm<sup>2</sup> Class Heavy Gauge Steel Plates with Low Temperature Toughness for Offshore Structures Manufactured by Continuous Casting, Forging and Rolling Process. 2016 ISOPE, p258.
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)RU )XUWKHU ,QIRUPDWLRQ 3OHDVH  
 3ODWH %XVLQHVV 3ODQLQJ 'HSW -)( 6WH  
 3KH ± ± )\$; ± ±  
 KWWS ZZZ MIH VWHHO FR IJMSWPO SURGXFW  
 (PDLO W DWVXLWDVHF#MIH VWHHO FR MS