

## **Presentation on NAS355N at "The 3rd Super Austenitic Stainless Steel and Nickel-base Alloy International Seminar"**

At the "The 3rd Super Austenitic Stainless Steel and Nickel-base Alloy International Seminar" (hosted by the Stainless Steel Council of China Special Steel Enterprises Association) held in Beijing, China on November 19 and 20, 2020, Nippon Yakin gave a lecture and presented a paper on the nickel base alloy, NAS355N, we developed last year, which provides excellent corrosion resistance in both high chloride and sulfuric acid environments.

### 1. Background to the participation

The "Chinese International Symposium on Super Austenitic Stainless Steel and Nickel Base Alloys" is an international conference where material manufacturers who supply materials and customers who use materials assemble together from inside and outside the country to share information about the development of new materials and the progress/improvement of processing technologies. (In the Third International Symposium, about 200 people participated, 19 theses were presented and 24 lectures were given.) Super austenitic stainless steel and nickel base alloys are representative high-end alloys for wide use in severe corrosive, high-temperature and high-pressure environments. With the development of the Chinese manufacturing industry, the upgrading of environmental protection equipment and the like, the demand for these high-end materials is increasing. NAS355N, which we newly developed last year, is a 7.5Mo nickel base corrosion-resistant alloy, providing corrosion resistance in a high-concentration chloride ion or sulfuric acid environment or an extremely severe corrosive environment where both high-concentration chloride ion and sulfuric acid exist, and it is expected to be in high demand in the Chinese market. We hope that many users and engineers know about the excellent properties of this material and new business opportunities are generated.

### 2. Contents of our presentation

- 1) Lecture: Properties of 7.5Mo Super Austenitic Stainless Steel
- 2) Paper: Development of 7.5Mo Nickel Base Alloy, NAS355N, for Both High Chloride and Sulfuric Acid Environments

Both the lecture and the paper were about NAS355N. NAS354N which we developed in 1997 is also our representative 7.5Mo-containing alloy. In this presentation, we reported mainly about the alloy design concept and various corrosion resistance data, and we also presented a wide range of contents including the metallographic observation result for welds, their corrosion resistance and the history of alloy development.



[Photo: Exhibition space in front of the symposium room]

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