

# METAL

## 20NiCrMo

### Basic Physical Properties

Certificate No: 6880080211

Purchaser Specifciation: GB/T 3077-1999

Mill No: B7600458228

Customer Order No: 092801885-10

Date of Issue: 2018/4/18

Date of Delivery: 2018/4/25

| No. | Heat No. | Slab No. | Material Description |        |     |      | Chemical Composition |      |      |       |      |     |      |     |     |
|-----|----------|----------|----------------------|--------|-----|------|----------------------|------|------|-------|------|-----|------|-----|-----|
|     |          |          | Diameter             | Length | Qty | N.W. | C                    | Si   | Mn   | P     | S    | Cr  | Mo   | Ni  | Cu  |
| 1   | 1956842  | 100690   | 40                   | 6      | 1   | 3697 | 0.17                 | 0.22 | 0.65 | 0.015 | 0.02 | 0.4 | 0.25 | 0.5 | 0.3 |
| 2   | 1956843  | 100691   | 50                   | 6      | 1   | 4474 | 0.17                 | 0.22 | 0.65 | 0.015 | 0.02 | 0.4 | 0.25 | 0.5 | 0.3 |
| 3   | 1956844  | 100692   | 55                   | 6      | 1   | 5324 | 0.17                 | 0.22 | 0.65 | 0.015 | 0.02 | 0.4 | 0.25 | 0.5 | 0.3 |
| 4   | 1956845  | 100693   | 70                   | 6      | 1   | 3965 | 0.17                 | 0.22 | 0.65 | 0.015 | 0.02 | 0.4 | 0.25 | 0.5 | 0.3 |
| 5   | 1956846  | 100694   | 75                   | 6      | 1   | 5010 | 0.17                 | 0.22 | 0.65 | 0.015 | 0.02 | 0.4 | 0.25 | 0.5 | 0.3 |

### Tensile Test

|   |         | Yield Point (Mpa) | Tensile Strength (Mpa) | Elongation | Hardness | Shrinkage Factor % |
|---|---------|-------------------|------------------------|------------|----------|--------------------|
| 1 | 1956842 | 795               | 1076                   | 9          |          | 55                 |
| 2 | 1956843 |                   |                        |            |          |                    |
| 3 | 1956844 |                   |                        |            |          |                    |
| 4 | 1956845 |                   |                        |            |          |                    |
| 5 | 1956846 |                   |                        |            |          |                    |

Size and surface: qualified

Tensile test: technique accord with GB/T1220-2007

Sample specifications: accord with No.5 on GB/T3077-1999

Hardness test :Technique accor with: JIS Z 2244

WE HERE BY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE MATERIAL SPECIFICATION

METAL

# 40NiCrMo

## Basic Physical Properties

|                               |                                             |
|-------------------------------|---------------------------------------------|
| Production No: 6-508123       | Weight: 8.032 ton                           |
| Shape: Round Steel            | Melting Method: By standard                 |
| Specification: GB/T3077 1999  | Designated Further: Hot Pressure Processing |
| Heat No: 16121038121          | Condition of Delivery: Hot Rolling          |
| Date of Issue: 20170403192136 |                                             |

## Chemical Compound (%)

| C    | Si   | Mn   | P     | Cr   | Ni   | Cu   | Mo   |
|------|------|------|-------|------|------|------|------|
| 0.41 | 0.24 | 0.61 | 0.017 | 0.84 | 1.27 | 0.11 | 0.17 |

## Mechanical Property

|                    |             |
|--------------------|-------------|
| Annealing Hardness | 258.0 258.0 |
|--------------------|-------------|

## Macrostructure Examination

|                                    |
|------------------------------------|
| Macrostructure                     |
| Pattern Segregation(Grade) 0.5 0.5 |
| General Porosity(Grade) 0.5 0.5    |
| Central Porosity(Grade) 0.5 0.5    |