

## Material Test Certificate according to EN 10204-2004 : 3.1

|            |   |            |                                 |             |           |           |           |               |            |
|------------|---|------------|---------------------------------|-------------|-----------|-----------|-----------|---------------|------------|
| Customer : | - | Material : | ASTM A193 GR. B8N CL.1B ED-2025 |             |           | TC No. :  | S67/26-XX |               |            |
| SWO No. :  | - | Date :     | -                               | Bar Shape : | Round Bar | Bar Size  | 20.0 mm   | TC Date :     | 04.04.20XX |
| PO No. :   | - | Date :     | -                               | RM TC No. : | -         | Lot No. : | AKF-XX    | INV. No./Date | -          |

## Chemical Composition Results %

| Elements : | C     | Mn    | P      | S     | Si    | Cr    | Ni    | Mo | N     | Sn | Cu | Al | B | Pb | Ca |
|------------|-------|-------|--------|-------|-------|-------|-------|----|-------|----|----|----|---|----|----|
| Min. :     | -     | -     | -      | -     | -     | 18.00 | 8.00  | -  | 0.10  | -  | -  | -  | - | -  | -  |
| Max. :     | 0.08  | 2.00  | 0.045  | 0.030 | 1.00  | 20.00 | 11.00 | -  | 0.16  | -  | -  | -  | - | -  | -  |
| Actual :   | 0.032 | 1.461 | 0.0352 | 0.011 | 0.416 | 18.56 | 8.14  | -  | 0.124 | -  | -  | -  | - | -  | -  |

|             |      |            |      |          |              |
|-------------|------|------------|------|----------|--------------|
| Lab TC No.: | XXXX | Lab Name : | XXXX | Result : | Satisfactory |
|-------------|------|------------|------|----------|--------------|

## Heat Treatment Records

| Heat Treatment Process   | Hardening Temp. °C | Tempering Temp. °C | Solution Annealing Temp. °C |
|--------------------------|--------------------|--------------------|-----------------------------|
| Temp. °C Min. :          | -                  | -                  | -                           |
| Temp. °C Recorded :      | -                  | -                  | -                           |
| Soaking Time :           | -                  | -                  | -                           |
| Quenching Medium :       | -                  | -                  | -                           |
| Carbide Solution Treated |                    |                    |                             |

## Mechanical Testing Results

| Mechanical Properties | Tensile Strength (Mpa) | Yield Strength 0.2 % Offset (Mpa) | % Elongation (GL-50mm) | % Reduction Area | Hardness (HRB)   | Proof Load (Kn) |
|-----------------------|------------------------|-----------------------------------|------------------------|------------------|------------------|-----------------|
| Specified             | Min.                   | 550                               | 240                    | 30               | 40               | -               |
|                       | Max.                   | -                                 | -                      | -                | 96               | -               |
| Actual Results:       | 702.36                 | 412.28                            | 46.12                  | 56.23            | 90.1, 89.5, 90.3 | -               |

| Impact Test Results | Charpy V Notch Impact Test |   |   |   | AVG Value (J) | Lateral Expansion |         |         |            |
|---------------------|----------------------------|---|---|---|---------------|-------------------|---------|---------|------------|
|                     | Specified Value (J)        | - | - | - | -             | Value 1           | Value 2 | Value 3 | Avg. Value |
|                     | Achieved Value (J)         | - | - | - | -             | -                 | -       | -       | -          |

|             |      |            |      |          |               |
|-------------|------|------------|------|----------|---------------|
| Lab TC No.: | XXXX | Lab Name : | XXXX | Result : | Satisfactory. |
|-------------|------|------------|------|----------|---------------|

## Item Details

| Po Sr. No. | Item Code | Drawing No./Rev. No. | Item Description                          | Length | Quantity  |
|------------|-----------|----------------------|-------------------------------------------|--------|-----------|
| 1          | -         | -                    | Studs Bolt M20 – 2.5P, A193 GR. B8N CL.1B | 120 mm | 25.00 NOS |
|            |           |                      |                                           |        |           |
|            |           |                      |                                           |        |           |

|                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|
| Remarks: -                                                                                                        |
| 01) Material is free from objectionable contamination.                                                            |
| 02) 100% visual inspection carried out & found free from defects.                                                 |
| 03) Chemical, Mechanical & Surface test carried out at room temperature 20°C.                                     |
| 04) Material fully fit the standard compliance requirements hence satisfactory.                                   |
| 05) No weld repair noticed.                                                                                       |
| 06) Above mentioned items conform to with respect to test carried out in order to the Purchase order requirement. |
| 07) All Dimensions are as per the Specification.                                                                  |
| 08) Above mentioned items are in line to the requirement of TIR No. 02 applicable.                                |

We confirm that above mentioned Items was Manufactured, Sampled, Tested and Inspected in accordance with the subjected Customer's Purchase Order and as applicable Drawings, Material Specifications, Codes & Standards and the results of the items have been determined to meet the users' requirements.

For Ananka Fasteners Pvt. Ltd.

For Client / TPI

## Material Test Certificate according to EN 10204-2004 : 3.1

|            |   |            |                                |             |           |           |           |               |            |
|------------|---|------------|--------------------------------|-------------|-----------|-----------|-----------|---------------|------------|
| Customer : | - | Material : | ASTM A193 GR. B8N CL.2 ED-2025 |             |           | TC No. :  | S68/26-XX |               |            |
| SWO No. :  | - | Date :     | -                              | Bar Shape : | Round Bar | Bar Size  | 20.0 mm   | TC Date :     | 14.05.20XX |
| PO No. :   | - | Date :     | -                              | RM TC No. : | -         | Lot No. : | AKF-XX    | INV. No./Date | -          |

## Chemical Composition Results %

| Elements : | C     | Mn    | P      | S     | Si    | Cr    | Ni    | Mo | N     | Sn | Cu | Al | B | Pb | Ca |
|------------|-------|-------|--------|-------|-------|-------|-------|----|-------|----|----|----|---|----|----|
| Min. :     | -     | -     | -      | -     | -     | 18.00 | 8.00  | -  | 0.10  | -  | -  | -  | - | -  | -  |
| Max. :     | 0.08  | 2.00  | 0.045  | 0.030 | 1.00  | 20.00 | 11.00 | -  | 0.16  | -  | -  | -  | - | -  | -  |
| Actual :   | 0.039 | 1.526 | 0.0381 | 0.010 | 0.472 | 18.51 | 8.09  | -  | 0.132 | -  | -  | -  | - | -  | -  |

|             |      |            |      |          |              |
|-------------|------|------------|------|----------|--------------|
| Lab TC No.: | XXXX | Lab Name : | XXXX | Result : | Satisfactory |
|-------------|------|------------|------|----------|--------------|

## Heat Treatment Records

| Heat Treatment Process | Hardening Temp. °C | Tempering Temp. °C | Solution Annealing Temp. °C                |
|------------------------|--------------------|--------------------|--------------------------------------------|
| Temp. °C Min. :        | -                  | -                  | -                                          |
| Temp. °C Recorded :    | -                  | -                  | -                                          |
| Soaking Time :         | -                  | -                  | -                                          |
| Quenching Medium :     | -                  | -                  | -                                          |
|                        |                    |                    | Carbide Solution Treated & Strain Hardened |

## Mechanical Testing Results

| Mechanical Properties | Tensile Strength (Mpa) | Yield Strength 0.2 % Offset (Mpa) | % Elongation (GL-50mm) | % Reduction Area | Hardness (HRC)   | Proof Load (Kn) |
|-----------------------|------------------------|-----------------------------------|------------------------|------------------|------------------|-----------------|
| Specified             | Min.                   | 860                               | 690                    | 12               | 35               | -               |
|                       | Max.                   | -                                 | -                      | -                | 35               | -               |
| Actual Results:       | 932.26                 | 768.29                            | 17.21                  | 41.29            | 31.2, 33.0, 30.2 | -               |

| Impact Test Results | Charpy V Notch Impact Test | AVG Value (J) | Lateral Expansion |
|---------------------|----------------------------|---------------|-------------------|
|                     | Specified Value (J)        | -             | -                 |
|                     | Achieved Value (J)         | -             | -                 |

|             |      |            |      |          |               |
|-------------|------|------------|------|----------|---------------|
| Lab TC No.: | XXXX | Lab Name : | XXXX | Result : | Satisfactory. |
|-------------|------|------------|------|----------|---------------|

## Item Details

| Po Sr. No. | Item Code | Drawing No./Rev. No. | Item Description                         | Length | Quantity  |
|------------|-----------|----------------------|------------------------------------------|--------|-----------|
| 1          | -         | -                    | Hex Bolt 3/4" – 10UNC, A193 GR. B8N CL.2 | 80 mm  | 10.00 NOS |
|            |           |                      |                                          |        |           |
|            |           |                      |                                          |        |           |

|                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|
| Remarks: -                                                                                                        |
| 01) Material is free from any visible contamination.                                                              |
| 02) 100% visual inspection carried out & found free from defects.                                                 |
| 03) Chemical, Mechanical & hardness test carried at room temperature 20°C.                                        |
| 04) Material fully fit the standard compliance requirements hence satisfactory.                                   |
| 05) No visible impact failure.                                                                                    |
| 06) Above mentioned items conform to with respect to test carried out in order to the Purchase order requirement. |
| 07) All dimensions are as per the Specification.                                                                  |
| 08) Above mentioned items are in line to the requirement of TIR No. 22 applicable.                                |

We confirm that above mentioned Items was Manufactured, Sampled, Tested and Inspected in accordance with the subjected Customer's Purchase Order and as applicable Drawings, Material Specifications, Codes & Standards and the results of the items have been determined to meet the users' requirements.

For Ananka Fasteners Pvt. Ltd.

For Client / TPI



## Material Test Certificate according to EN 10204-2004 : 3.1

|            |   |            |                                  |             |           |           |           |               |            |
|------------|---|------------|----------------------------------|-------------|-----------|-----------|-----------|---------------|------------|
| Customer : | - | Material : | ASTM A193 GR. B8NA CL.1A ED-2025 |             |           | TC No. :  | S69/26-XX |               |            |
| SWO No. :  | - | Date :     | -                                | Bar Shape : | Round Bar | Bar Size  | 12 mm     | TC Date :     | 24.05.20XX |
| PO No. :   | - | Date :     | -                                | RM TC No. : | -         | Lot No. : | AKF-XX    | INV. No./Date | -          |

## Chemical Composition Results %

| Elements :      | C            | Mn           | P             | S            | Si           | Cr           | Ni          | Mo | N            | Sn | Cu | Al | B | Pb | Ca |
|-----------------|--------------|--------------|---------------|--------------|--------------|--------------|-------------|----|--------------|----|----|----|---|----|----|
| <b>Min. :</b>   | -            | -            | -             | -            | -            | 18.00        | 8.00        | -  | 0.10         | -  | -  | -  | - | -  | -  |
| <b>Max. :</b>   | 0.08         | 2.00         | 0.045         | 0.030        | 1.00         | 20.00        | 11.00       | -  | 0.16         | -  | -  | -  | - | -  | -  |
| <b>Actual :</b> | <b>0.027</b> | <b>1.593</b> | <b>0.0314</b> | <b>0.015</b> | <b>0.392</b> | <b>18.34</b> | <b>8.21</b> | -  | <b>0.126</b> | -  | -  | -  | - | -  | -  |

|                    |      |                   |      |                 |              |
|--------------------|------|-------------------|------|-----------------|--------------|
| <b>Lab TC No.:</b> | XXXX | <b>Lab Name :</b> | XXXX | <b>Result :</b> | Satisfactory |
|--------------------|------|-------------------|------|-----------------|--------------|

## Heat Treatment Records

| Heat Treatment Process          | Hardening Temp. °C | Tempering Temp. °C | Solution Annealing Temp. °C |
|---------------------------------|--------------------|--------------------|-----------------------------|
| <b>Temp. °C Min. :</b>          | -                  | -                  | -                           |
| <b>Temp. °C Recorded :</b>      | -                  | -                  | -                           |
| <b>Soaking Time :</b>           | -                  | -                  | -                           |
| <b>Quenching Medium :</b>       | -                  | -                  | -                           |
| <b>Carbide Solution Treated</b> |                    |                    |                             |

## Mechanical Testing Results

| Mechanical Properties  | Tensile Strength (Mpa) | Yield Strength 0.2 % Offset (Mpa) | % Elongation (GL-50mm) | % Reduction Area | Hardness (HRB)          | Proof Load (Kn) |
|------------------------|------------------------|-----------------------------------|------------------------|------------------|-------------------------|-----------------|
| <b>Specified</b>       | <b>Min.</b>            | 515                               | 205                    | 30               | 50                      | -               |
|                        | <b>Max.</b>            | -                                 | -                      | -                | 90                      | -               |
| <b>Actual Results:</b> | <b>702.36</b>          | <b>412.28</b>                     | <b>46.12</b>           | <b>56.23</b>     | <b>84.2, 86.1, 86.4</b> | -               |

| Impact Test Results | Charpy V Notch Impact Test |   |   |   | AVG Value (J) | Lateral Expansion |         |         |            |
|---------------------|----------------------------|---|---|---|---------------|-------------------|---------|---------|------------|
|                     | Specified Value (J)        | - | - | - | -             | Value 1           | Value 2 | Value 3 | Avg. Value |
|                     | Achieved Value (J)         | - | - | - | -             | -                 | -       | -       | -          |

|                    |      |                   |      |                 |               |
|--------------------|------|-------------------|------|-----------------|---------------|
| <b>Lab TC No.:</b> | XXXX | <b>Lab Name :</b> | XXXX | <b>Result :</b> | Satisfactory. |
|--------------------|------|-------------------|------|-----------------|---------------|

## Item Details

| Po Sr. No. | Item Code | Drawing No./Rev. No. | Item Description                            | Length | Quantity  |
|------------|-----------|----------------------|---------------------------------------------|--------|-----------|
| 1          | -         | -                    | Studs Bolt M12 – 1.75P, A193 GR. B8NA CL.1A | 110 mm | 10.00 NOS |
|            |           |                      |                                             |        |           |
|            |           |                      |                                             |        |           |

|                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|
| <b>Remarks: -</b>                                                                                                 |
| 01) Material is free from objectionable contamination.                                                            |
| 02) 100% visual inspection carried out & found free from defects.                                                 |
| 03) Chemical, Mechanical & Dimensional test carried out at room temperature 20°C.                                 |
| 04) Material fully fit the standard compliance requirements hence satisfactory.                                   |
| 05) No weld metal defects.                                                                                        |
| 06) Above mentioned items conform to with respect to test carried out in order to the Purchase order requirement. |
| 07) All Dimensions are as per the Specification.                                                                  |
| 08) Above mentioned items are in line to the requirement of TIR No. 02 applicable.                                |

We confirm that above mentioned Items was Manufactured, Sampled, Tested and Inspected in accordance with the subjected Customer's Purchase Order and as applicable Drawings, Material Specifications, Codes & Standards and the results of the items have been determined to meet the users' requirements.



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