

**PlasmaNit®**

Tratamientos Térmicos Avanzados SA de CV
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**Su Aliado para el Óptimo
Rendimiento.**

SURFACE HARDNESS CERTIFICATE 4125

Fecha de Entrega: 12/Nov/2021

No. Ciclo: 83PlasmaNit50H

CUSTOMER FORJA DE MONTERREY, S.A. DE C.V.
STREET: Carretera Monterrey-Colombia Km 6.5 S/N
COLONY: Gral. Escobedo Centro
CITY: General Escobedo, Nuevo León, México, C.P. 66050
RFC: FMO9608275B3
CONTACT: A Quien Corresponda TELEFONO: 83050000; EMAIL:

No. CLIENTE: CLT271

Documento Relacionado: #

| Code | Amount | Measure | Description/ Service PlasmaNIT | Base HRC | Surface HRC |
|--------------|--------|------------|---|----------|-------------|
| FORJAMTYUSD1 | 52 | KILOGRAMOS | Dobladoras y Matrices Maquinados AEME 1 pza Matriz (52 kgrs) | 48.1 | 66 |

Observaciones:

Final Visual Conditions: Approved

Control de Calidad

Sergio Bolado Moreno

Notes: Internationals Standar Used on Test: ASTM E18

1. With this document we state that the pieces mentioned above were treated with PlasmaNit process in a standard cycle for maximum surface and difusión hardness, taking just inside the technical requirements, procedures and specifications established by the SAE.

2. To determine the surface hardness by sampling was used the tester Krautkramer Branson portable surface hardness MIC 10 for tests on metals by the UCI method (Ultrasonic Contact Impedance) with test load 5 kgf.

3. The Surface hardness and diffusion values obtained depend on the chemical composition of the material and previous heat treatment.

Estimated hardness and diffusion for standard cycle PlasmaNit 50H on material:

Carbon Steel (30 to 45 HRC) (0.002" to 0.010")

Machinery Grade Steel (50 TO 62 HRC) (0.015" to 0.025")

Tool grade steel (55 TO 70 HRC) (0.005" to 0.010")

Stainless steel (55 TO 68 HRC) (0.001" to 0.005")

4. The Base Material Hardness is a reference value measured before the PlasmaNit treatment, may vary after PlasmaNit treatment depending on tempering temperatures of previous heat treatment.

5. At the same load of said parts a segments of known material and heat treatment is introduced to the charge to ratify and evidence proper PlasmaNit treatment. (Expected Surfaces hardness range; 88-91 HR-15N)

Términos y Condiciones: <http://www.ttavanzados.com/doc/terminosycondiciones.pdf>

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Hoja 1