

# QUALITY CERTIFICATION

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| HOSE: HYDRAULIC HOSE EN 856 4SP      1/2"<br>NORM: DIN 20023 4SP<br>FIRM:<br>Producer: | REPORT NO.: 2024T0916003<br>DATE OF TEST: 2024/09/15<br>DATE OF REPORT: 2024/09/16<br>TRACKING |
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| TEST NMAE  | SPECIFICATION  | RESULT      |             |             | METHOD       |
|--|----------------|-------------|-------------|-------------|--------------|
|  |                | NO:1        | NO:2        | NO:3        |              |
| <b>1.0 DIMENSION CONTROL</b>                                   |                |             |             |             | EN 24671     |
| 1.1 Inside Diameter,                      mm                   | 12.5-13        | 12.7        | 12.8        | 12.6        |              |
| 1.2 Outside Diameter,                      mm                  | 24.1-24.6      | 24.4        | 24.3        | 24.2        |              |
| 1.3 Concentricity (internal-outside/diameter)                  | MAX:0.8        | 0.7         | 0.6         | 0.5         |              |
| 1.4 Cover wall thickness                      mm               | 0.8-2          | OK          | OK          | OK          |              |
| 1.5 Inner compound   | NBR            | OK          | OK          | OK          |              |
| 1.6 Inner compound code  | 1201           | OK          | OK          | OK          |              |
| 1.7 Cover compound   | CR/NBR         | OK          | OK          | OK          |              |
| 1.8 Cover compound code  | 2106           | OK          | OK          | OK          |              |
| <b>2.0 HYDROSTATIC TEST</b>                                    |                |             |             |             | EN ISO 1402  |
| 2.1 Working Pressure,                      kgf/cm <sup>2</sup> | 415            | OK          | OK          | OK          |              |
| 2.2 Change Elongation at W.P.                      %           | +2/-4          | 0.6         | 0.7         | 0.5         |              |
| 2.3 Proof Pressure,                      kgf/cm <sup>2</sup>   | 830            | OK          | OK          | OK          |              |
| 2.4 Burst Pressure,                      kgf/cm <sup>2</sup>   | MIN:1660       | 169         | 175         | 182         |              |
| 2.5 Minimum Bend Radius, (180mm) %                             | MAX:1.0        | OK          | OK          | OK          |              |
| 2.6 Working temp. MAX  | (-40°C/+100°C) | OK          | OK          | OK          |              |
| <b>3.0 COLD FLEXIBILITY</b>                                    |                |             |             |             | EN 24672/B   |
| 3.1(-40°C/24h)                      (TUBE)                     | No Crack       | Not Cracked | Not Cracked | Not Cracked |              |
| 3.2(-40°C/24h)                      (COVER)                    | No Crack       | Not Cracked | Not Cracked | Not Cracked |              |
| <b>4.0 ADHESIVE</b>  |                |             |             |             | EN 28033     |
| 4.1 Liner-Reinforcement,                      kgf/cm           | MIN:2.5        | No Separate | No Separate | No Separate |              |
| 4.2 Reinforcement - Cover,                      kgf/cm         | MIN:2.5        | No Separate | No Separate | No Separate |              |
| <b>5.0 FIULD RESISTANCE</b>                                    |                |             |             |             | ISO 1817     |
| 5.1 ASTM NO:3 (CHANGE IN VOLUME)                               |                |             |             |             |              |
| 5.1.1(100°C.72h)                      (TUBE) %                 | 0/100          | 8.25        | 8.25        | 8.25        |              |
| 5.1.2(100°C.72h)                      (COVER) %                | 0/100          | 38.67       | 38.67       | 38.67       |              |
| 6.0 LEAKAGE TEST                      kgf/cm <sup>2</sup>      | 854            | OK          | OK          | OK          | EN ISO 1402  |
| 7.0 OZONE RESITANCE                      (COVER)               | Rating:0       | Rating:0    | Rating:0    | Rating:0    | EN 27326/1-2 |
| (40C/50 pphm O3/72h/%20 Elon./ 2X)                             |                |             |             |             |              |
| 8.0 VACUUM                      bar                            | MAX:-0.8       | OK          | OK          | OK          |              |
| 9.0 IMPULSE TEST                      Cycles                   | MIN:400.000    | OK          | OK          | OK          | ISO 6803     |

INSPECTOR:  
SIGNATURE:

APPROVED:  
SIGNATURE