

COPY

P/O No. : 21888
 L/C No. : M01861
 ISSUED DATE : 2015.10.15
 COMMODITY : E.R.W. STEEL PIPE
 SPECIFICATION : API 5L X-42 PSL1/ASTM A53B

QUALITY CERTIFICATE

주식회사 휴스틸
HUSTEEL Co., Ltd.

HEAD OFFICE SHINAN B/D 15F, 943-19, DAECHE-DONG,
 KANGNAM-GU, SEOUL, KOREA
 DANGJIN PLANT 131, BUGOKGONGDAN STREET, SONGAK-EUP,
 DANGJIN-SI, CHUNGCHEONGNAM-DO, KOREA

CERTIFICATE No. : 151005
 MANUFACTURED No. : 10-15-010-0
 SUPPLIER : HUSTEEL CO., LTD.
 CUSTOMER : PLESA ANAHUAC Y CIAS, S.A. DE C.V.



| NO. | HEAT_NO | QUANTITY | TYPE | NOMINAL SIZE | ORDER SIZE | | | WEIGHT | TENSILE TEST | | | | | CHEMICAL COMPOSITION(%) | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---------|----------|------|--------------|------------|-------|--------|--------|--------------|--------|--------|----|----|-------------------------|---|----|----|----|----|----|----|----|----|----|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | O.D | WT | LENGTH | | DIR. | TS | YS | EL | YR | WTS | C | Si | Mn | P | S | Cu | Ni | Cr | Mo | V | Nb | Ti | B | CEQ | PCM | | | | | | | | | | |
| | | | | | inch | inch | ft | | | | | | | | | | | | | | | | | | | | | | | PSI | PSI | PSI | PSI | PSI | PSI | PSI | PSI | PSI | PSI |
| 01 | N59203 | 70 | BPEB | 14 | 14.000 | 0.312 | 20 | 45.65 | T | 68,679 | 58,692 | 37 | 84 | 72,485 | H | 6 | 1 | 73 | 14 | 6 | 11 | 10 | 20 | 0 | 10 | 140 | 10 | | | | | | | | | | | | |
| | N63429 | 69 | BPEB | 14 | 14.000 | 0.312 | 20 | 45.65 | T | 68,730 | 58,842 | 36 | 84 | 71,636 | P | 6 | 1 | 75 | 14 | 7 | 12 | 10 | 22 | 14 | 16 | 138 | 10 | | | | | | | | | | | | |
| 02 | N64552 | 73 | BPEB | 14 | 14.000 | 0.312 | 20 | 45.65 | T | 68,676 | 58,867 | 36 | 75 | 72,682 | H | 6 | 1 | 75 | 14 | 7 | 16 | 10 | 10 | 20 | 10 | 10 | 10 | 6 | | | | | | | | | | | |

| NO. | HYDROSTATIC TEST | | | HEAT TREATMENT | ZINC COATING TEST | | THREADS | | HARDNESS TEST | IMPACT TEST | | | *13 N · D · T (UT Or ECT) | FLATTENING OR BEND TEST | VISUAL & DIMENSION | METALLOGRAPHIC TEST | RESIDUAL MAGNETISM |
|-----|------------------|-----|--------|----------------|-------------------|-------|---------|-----|---------------|-------------|-----------------|------|-----------------------------|-------------------------|--------------------|---------------------|--------------------|
| | T.P | H.T | RESULT | | WZC | CST | TPI | ETL | | DIV | Energy (Ind, J) | SIZE | | | | | |
| | PSI | sec | °C | | g/m ² | TIMES | mm | HV | | | | | | | | | |
| 01 | 1600 | 5 | GOOD | 900 | | | | | | | | | | | | | |
| | 1600 | 5 | GOOD | 900 | | | | | | | | | | | | | |
| 02 | 1600 | 5 | GOOD | 900 | | | | | | | | | | | | | |

HARDNESS MAX 22 HRC AS PER NACE MR 0175
 Latest edition per API 5L(45th,2013) ASTM(2012)

*1. Type of Pipe Ends

| | | | |
|------|--------------------------|------|-------------------------------|
| BPE | Black Plain Ends | GPE | Galvanized Plain Ends |
| BPEB | BPE Bevelled | GPEB | GPE Bevelled |
| BTE | Black Threaded Ends | GTE | Galvanized Threaded Ends |
| BTC | Black Threaded & Coupled | GTC | Galvanized Threaded & Coupled |

*2. O.D : Outside Diameter, W.T : Wall Thickness
 *3. Direction- L : Longitudinal, T : Transverse
 *4. Tensile Test -TS : Tensile Strength, YS : Yield Strength, YR : Yield Ratio, EL : Elongation, WTS : Weld tensile strength, Gauge Length : 2 inch, YP method : 0.5% Underload
 *5. H : Heat analysis, P : Product analysis
 *6. -2 : x1/100, -3 : x1/1000, -4 : x1/10000, -5 : x1/100000, Tr : Trace
 *7. B : Base Metal, W : Weld Line, H : Heat Affected Zone
 *8. Specimen Size -A : 10x10mm, B : 10x7.5mm, C : 10x6.5mm, D : 10x5.0mm, Direction Transverse
 *9. LP : Testing Pressure, H.T : Holding Time
 *10. Heat Treatment Seam Normalizing
 *11. W.Z.C : Weight of Zinc Coating, C.S.T : Copper Sulphate Test
 *12. T.P.I : Threads per inch, E.T.L : Effective length of threads
 *13. NDT : UT Or ECT.

SURVEYOR
 WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE ORDER AND ABOVE SPECIFICATION
 THIS CERTIFICATE IS ISSUED ACCORDING TO EN 10204 3.1(ISO 10474 3.1 B)
Sang Jun Park
 MANAGER OF QA TEAM

HMC C-30-05-(21)

본 검사증명서에 영기된 규격용도 외 사용시 안전상 문제가 발생할 수 있으며, 검사증명서 위·변조시 사문서 위조(형법231조)로 불이익을 당하실 수 있습니다.
 HUSTEEL