

Summary of chemical analysis and mechanical properties of the tubes that we manufacture and the steel grades used in production is given below as per related production standards.

| STEEL COMPOSITION AND MECHANICAL PROPERTIES AT +CR1 DELIVERY CONDITION AS PER EN 10305-3 AND EN 10305-5 |                                                                              |                                                |                               |      |      |       |       |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------|-------------------------------|------|------|-------|-------|
| STEEL GRADE                                                                                             | MIN. TENSILE STRENGTH AT +CR1 DELIVERY CONDITION, $R_m$ (N/mm <sup>2</sup> ) | MIN % ELONGATION AT +CR1 DELIVERY CONDITION, A | CHEMICAL COMPOSITION (MAX. %) |      |      |       |       |
|                                                                                                         |                                                                              |                                                | C                             | Si   | Mn   | P     | S     |
| E155                                                                                                    | 290                                                                          | 15                                             | 0,11                          | 0,35 | 0,70 | 0,025 | 0,025 |
| E195                                                                                                    | 330                                                                          | 8                                              | 0,15                          | 0,35 | 0,70 | 0,025 | 0,025 |
| E235                                                                                                    | 390                                                                          | 7                                              | 0,17                          | 0,35 | 1,20 | 0,025 | 0,025 |

| STEEL COMPOSITION AND MECHANICAL PROPERTIES AT +CR2 DELIVERY CONDITION AS PER EN 10305-3 AND EN 10305-5 |                                                                              |                                                                              |                                                |                               |      |      |       |       |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------|-------------------------------|------|------|-------|-------|
| STEEL GRADE                                                                                             | MIN. TENSILE STRENGTH AT +CR2 DELIVERY CONDITION, $R_m$ (N/mm <sup>2</sup> ) | MIN. TENSILE STRENGTH AT +CR2 DELIVERY CONDITION, $R_e$ (N/mm <sup>2</sup> ) | MIN % ELONGATION AT +CR2 DELIVERY CONDITION, A | CHEMICAL COMPOSITION (MAX. %) |      |      |       |       |
|                                                                                                         |                                                                              |                                                                              |                                                | C                             | Si   | Mn   | P     | S     |
| E320                                                                                                    | 410                                                                          | 320                                                                          | 19                                             | 0,20                          | 0,35 | 1,40 | 0,025 | 0,025 |
| E370                                                                                                    | 450                                                                          | 370                                                                          | 15                                             | 0,21                          | 0,55 | 1,60 | 0,025 | 0,025 |

| COLD ROLLED STEELS AS PER EN 10130 |                                            |                                              |                      |                               |       |       |      |    |
|------------------------------------|--------------------------------------------|----------------------------------------------|----------------------|-------------------------------|-------|-------|------|----|
| STEEL GRADE                        | YIELD STRENGTH, $R_e$ (N/mm <sup>2</sup> ) | TENSILE STRENGTH, $R_m$ (N/mm <sup>2</sup> ) | MIN. % ELONGATION, A | CHEMICAL COMPOSITION (MAX. %) |       |       |      |    |
|                                    |                                            |                                              |                      | C                             | P     | S     | Mn   | Ti |
| DC 01                              | 280                                        | 270 - 410                                    | 28                   | 0,12                          | 0,045 | 0,045 | 0,60 | -  |
| DC 03                              | 240                                        | 270 - 370                                    | 34                   | 0,10                          | 0,035 | 0,035 | 0,45 | -  |
| DC 04                              | 210                                        | 270 - 350                                    | 38                   | 0,08                          | 0,030 | 0,030 | 0,30 | -  |

| HIGH STRENGTH LOW ALLOY STEELS AS PER EN 10268 |                                                                |                                                                                       |                                   |                               |     |      |       |       |       |      |      |
|------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|-------------------------------|-----|------|-------|-------|-------|------|------|
| STEEL GRADE                                    | LONGITUDINAL MIN. TENSILE STRENGTH, $R_m$ (N/mm <sup>2</sup> ) | LONGITUDINAL MIN. YIELD STRENGTH AT HIGH TEMPERATURE, $R_{p0,2}$ (N/mm <sup>2</sup> ) | LONGITUDINAL MIN. % ELONGATION, A | CHEMICAL COMPOSITION (MAX. %) |     |      |       |       |       |      |      |
|                                                |                                                                |                                                                                       |                                   | C                             | Si  | Mn   | P     | S     | Al    | Ti   | Nb   |
| H340LA                                         | 400 - 500                                                      | 320 - 410                                                                             | 22                                | 0,10                          | 0,5 | 1,00 | 0,025 | 0,025 | 0,015 | 0,15 | 0,09 |
| H380LA                                         | 430 - 550                                                      | 360 - 460                                                                             | 20                                | 0,10                          | 0,5 | 1,40 | 0,025 | 0,025 | 0,015 | 0,15 | 0,09 |

| COLD FORMABLE GALVANIZED STEELS AS PER EN 10346 |                                            |                                              |                      |                               |      |      |      |       |      |
|-------------------------------------------------|--------------------------------------------|----------------------------------------------|----------------------|-------------------------------|------|------|------|-------|------|
| STEEL GRADE AND COATING                         | YIELD STRENGTH, $R_e$ (N/mm <sup>2</sup> ) | TENSILE STRENGTH, $R_m$ (N/mm <sup>2</sup> ) | MIN. % ELONGATION, A | CHEMICAL COMPOSITION (MAX. %) |      |      |      |       |      |
|                                                 |                                            |                                              |                      | C                             | Si   | Mn   | P    | S     | Ti   |
| DX51D+Z                                         | -                                          | 270 - 500                                    | 22                   | 0,18                          | 0,50 | 1,20 | 0,12 | 0,045 | 0,30 |
| DX52D+Z                                         | 140 - 300                                  | 270 - 420                                    | 26                   | 0,12                          | 0,50 | 0,60 | 0,10 | 0,045 | 0,30 |
| DX53D+Z                                         | 140 - 260                                  | 270 - 380                                    | 30                   | 0,12                          | 0,50 | 0,60 | 0,10 | 0,045 | 0,30 |
| DX54D+Z                                         | 120 - 220                                  | 270 - 350                                    | 36                   | 0,12                          | 0,50 | 0,60 | 0,10 | 0,045 | 0,30 |