

## DECLARATION OF PERFORMANCE No. M12SB8.8/10HDG

**UIC of the product type:** M12SB8.8/10HDG (Unique Identification Code)  
**Intended use:** General building and engineering structures including off-shore structures  
**Manufacturer:** **Andrews Fasteners Ltd**  
**Latchmore Park, Latchmore Road,**  
**Leeds, LS12 6DN, West Yorkshire, United Kingdom**  
**System/s of AVCP:** System 2+  
**Harmonised standard:** EN 15048-1:2007  
**Notified Body/ies:** 0038 - Lloyds Register Verification Limited  
 71 Fenchurch Street, London EC3M 4BS UK  
**EC Certificate of Conformity No.:** 0038/CPR/LRQ 4009220/A  
**Declared performance:**

| Essential characteristics                               | Performance                                        | Harmonized technical specification |
|---------------------------------------------------------|----------------------------------------------------|------------------------------------|
| <b>Bolts</b>                                            |                                                    |                                    |
| Tolerances on dim., form and position                   | EN ISO 4017                                        | EN 15048-1:2007                    |
| Elongation after fracture                               | min. 12% (ISO 898-1)                               | EN 15048-1:2007                    |
| Minimum tensile strength                                | min. 800 MPa (ISO 898-1)                           | EN 15048-1:2007                    |
| Lower yield strength or Stress at 0.2% non-proportional | min. 640 MPa (ISO 898-1)                           | EN 15048-1:2007                    |
| Stress under proof load                                 | min. 580 MPa (ISO 898-1)                           | EN 15048-1:2007                    |
| Strength under wedge loading                            | min. 70 kN (ISO 898-1)                             | EN 15048-1:2007                    |
| Hardness                                                | req 255-335 HV, 250-331 HBW, 23-34 HRC (ISO 898-1) | EN 15048-1:2007                    |
| Impact strength                                         | min. 27 J at -20 °C (ISO 898-1)                    | EN 15048-1:2007                    |
| Release of dangerous substances                         | Substances X: Less than 0.2 ppm                    | EN 15048-1:2007                    |
| Durability                                              | pass (ISO 10684, 50um av min)                      | EN 15048-1:2007                    |
| <b>Nuts</b>                                             |                                                    |                                    |
| Tolerances on dimensions, form and position             | EN ISO 4032                                        | EN 15048-1:2007                    |
| Stress under proof load                                 | min. 88,5 kN (ISO 898-2)                           | EN 15048-1:2007                    |
| Hardness                                                | 272-353 HV, 259-336 HB, 26-36 HRC (ISO 898-2)      | EN 15048-1:2007                    |
| Release of dangerous substances                         | Substances X: Less than 0.2 ppm                    | EN 15048-1:2007                    |
| Durability                                              | pass (ISO 10684, 50um av min)                      | EN 15048-1:2007                    |
| <b>Washers</b>                                          |                                                    |                                    |
| Tolerances on dimensions, form and position             | ISO 7091                                           | EN 15048-1:2007                    |
| Hardness (washer)                                       | min. 100 HV                                        | EN 15048-1:2007                    |
| Release of dangerous substances                         | Substances X: Less than 0.2 ppm                    | EN 15048-1:2007                    |
| Durability                                              | pass (ISO 10684, 50um av min)                      | EN 15048-1:2007                    |
| <b>Assemblies</b>                                       |                                                    |                                    |
| Tensile Resistance of the assembly                      | min. 70 kN (ISO 898-1)                             | EN 15048-1:2007                    |
| Durability                                              | pass (ISO 10684, 50um av min)                      | EN 15048-1:2007                    |

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.



Signed for and on behalf of the manufacturer by:  
**Michael Carey**  
 Managing Director  
 At Leeds on 26/01/2016