

DECLARATION OF PERFORMANCE No. M20SB8.8/10HDG

UIC of the product type: M20SB8.8/10HDG (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 |
|---|--|------------------------------------|
| Bolts | | |
| 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. 830 MPa (ISO 898-1) | EN 15048-1:2007 |
| Lower yield strength or Stress at 0.2% non-proportional | min. 660 MPa (ISO 898-1) | EN 15048-1:2007 |
| Stress under proof load | min. 600 MPa (ISO 898-1) | EN 15048-1:2007 |
| Strength under wedge loading | min. 203 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 |
| Nuts | | |
| Tolerances on dimensions, form and position | EN ISO 4032 | EN 15048-1:2007 |
| Stress under proof load | min. 259,7 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 |
| Washers | | |
| 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 |
| Assemblies | | |
| Tensile Resistance of the assembly | min. 203 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