GENERAL NOTES FOR DUCTILE IRON (D.I.) MANHOLE COVERS

1. GENERAL


1.2 ALLOWANCE SHOULD BE MADE FOR MACHINING WHERE APPLICABLE.

1.3 SHARP EDGES SHALL BE REMOVED.

2. DIMENSIONS AND MARKINGS

2.1 THE CASTING OF MARKINGS SHALL BE CLEARLY LEGIBLE.

3. TEST LOADS AND WEIGHT

3.1 THE D.I. MANHOLE COVERS AND FRAMES SHALL BE DESIGNED AND TESTED ACCORDING TO BS EN 124 : 1994 WITH TEST LOAD SPECIFIED IN THE TABLE BELOW -

<table>
<thead>
<tr>
<th>DESIGNATION</th>
<th>DIAMETER OF TEST BLOCK</th>
<th>TEST LOAD</th>
<th>WEIGHT (APPROX.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD 675 SQUARE ONE-PIECE D.I. DOUBLE-SEAL TERMINAL MANHOLE COVER &amp; FRAME, CLASS B125 (FOR AREA USED BY PEDESTRIANS AND PEDESTRIAN CYCLISTS ONLY)</td>
<td>250mm</td>
<td>125kN</td>
<td>94 kg (COVER) 76 kg (FRAME)</td>
</tr>
<tr>
<td>STANDARD 675 SQUARE ONE-PIECE D.I. DOUBLE-SEAL TERMINAL MANHOLE COVER &amp; FRAME, CLASS C250 (FOR FOOTWAYS, PEDESTRIAN AREAS, CAR PARKS AND AREAS WHERE THERE ARE SLOW-MOVING SERVICE AND DELIVERY VEHICLES, REFUSE COLLECTION VEHICLES, EMERGENCY VEHICLES ETC.)</td>
<td>250mm</td>
<td>250kN</td>
<td>129 kg (COVER) 98 kg (FRAME)</td>
</tr>
<tr>
<td>STANDARD 675 SQUARE DOUBLE TRIANGULAR D.I. MANHOLE COVER &amp; FRAME, CLASS E600</td>
<td>250mm</td>
<td>600kN</td>
<td>110 kg (COVER) 58 kg (FRAME)</td>
</tr>
</tbody>
</table>

GENERAL NOTES FOR DUCTILE IRON MANHOLE COVER & FRAME

DRAINAGE SERVICES DEPARTMENT

REFERENCE

DRAWING No.

SCALE

DIAGRAMMATICAL

(SHEET 1 OF 2)
4. MATERIAL

4.1 MANHOLE COVER AND FRAME SHALL BE MADE OF SPHERIDAL GRAPHITE CAST IRON (DUCTILE IRON) OF GRADES EN-GJS-500-7 TO BS EN 1563 : 1997.

4.2 UNLESS OTHERWISE INDICATED, BOLTS FOR THE COVERS SHALL BE GRADE 8.8 M16 HEXAGON HEADED BOLTS COMPLETE WITH HEXAGON LOCK NUTS.

4.3 THE DIMENSIONS OF THE BOLTS SHALL COMPLY WITH THE RELEVANT REQUIREMENTS OF BS 4190.

5. COATING

5.1 MANHOLE COVER AND FRAME SHALL BE COATED WITH 2 LAYERS OF BLACK NON-TOXIC WATER-BASED BITUMENT COATING TO BS 3416.

5.2 ALL CASTINGS SHALL BE THOROUGHLY CLEANED AND FREE OF MOULDING SANDS, RUST OR ANY OTHER IMPURITY BEFORE APPLYING THE PROTECTIVE COATING.

5.3 THE COATING SHALL BE FREE OF BARE PATCHES OR LACK OF ADHESION.

6. OTHERS

6.1 THE MANHOLE COVERS SHALL BE COMPATIBLE WITH THEIR SEATINGS. THESE SEATINGS SHALL BE MANUFACTURED IN SUCH A WAY TO ENSURE STABILITY AND QUIETNESS IN USE.

6.2 ALL CAST UNITS SHALL BE CLEANLY CAST AND FREE FROM AIR HOLES, SAND HOLES AND ANY SURFACE DEFECTS.

6.3 MANHOLE FRAMES SHOULD BE BEDDED UPON BEDDING MATERIAL WHICH IS NON-SHRINK AND HAVE COMPRESSIVE STRENGTH EXCEEDING 30 N/mm².