

4lb Incendiary Bomb

The 4lb Incendiary bomb was the standard light incendiary bomb used by Bomber Command during the Second World War. The bomb consisted of a magnesium body with a cast iron/steel nose. The bomb was filled with thermite incendiary pellets and was capable of burning for up to ten minutes, the magnesium body added to the incendiary effect. There was also a high explosive version and delayed high explosive versions (2-4 minutes) which were intended to hinder fire services.

The bomb could be dropped signally but was usually carried in a 250lb small bomb container, the intention being to drop a large number of incendiary bombs in a small area and time. This would hopefully saturate the fire fighting services by creating a larger number of points of fire than the services were capable of coping with at any one moment. 90 bombs were usually carried per container. In penetration terms the bomb usually penetrated to the third floor of most buildings. The 4lb incendiary was generally reliable, functioning even after impact on hard targets (such as 6" flat concrete) although the bombs would be liable to fail if they were first deflected by roof structures.

The 4lb incendiary bomb was produced in very large numbers. In March 1940 requirements were set for up to 500,000 per month up to April 1941 and 760,000 per month in May 1942, although at the time capacity did not exceed 200,000 per month. Efforts were made to find increase capacity. Production for the first half of 1941 was low, this was due to shortages of magnesium. Lessons were learnt and requirements increased to 12 million to be produced between April 1941 and December 1941, planned capacity however could only produce 814,000 per month - there was enough magnesium for 1 million bombs a month and possibly 1.5 million if supplies from the USA could be secured. By August 1941 a new plan for increased production had been made, enquiries in the USA had resulted in the possibility of up to 3 million per month being produced by the USA, this however would mean no magnesium would be exported to the UK. Efforts were therefore made to increase output of magnesium in Britain so that 3 million per month could be created without the USA's help.

Increasing the magnesium capacity from 1 million bombs to 3 million per month required 20,000 tons of magnesium per year and Magnesium Elecktron Ltd were willing to operate four new 5,000 ton factories. Production in 1941 was far below requirements with only 2.25 million being produced. Capacity increased in 1942 11.8 million were produced, this was a massive improvement over the previous year but still well short of requirements. By 1943 the capacity laid down in 1941 came into production and the target of 3 million per month was nearly

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reached with 35.8 million bombs being produced. 4lb bombs from the USA also began to arrive with 4.5 million being received in 1943. In 1944 production was allowed to decline but still 35.8 million bombs were produced, the decline was due to the bombs arriving from the USA.

Cluster versions of the 4lb incendiary were introduced in 1944, these being 500lb, 750lb and 1000lb which contained 106, 158 and 235 4lb bombs.

4lb Incendiary bomb specifications

Bomb In	Mk I-III
Construction	Stainless Steel Alloy
Total Weight	(1.81kg)
Total Length	(54.35cm)
Body Diameter	(4.2cm)
Filling	Thermite pellets

Sources - AVIA 46 163