What is claimed is:

1. A hole formation method comprising:

a hole formation step of machining a portion to be processed of a workpiece material by means of drilling to form a hole while a lubricant material for assisting machining process having a sheet shape is in contact with at least one of a drill bit and the portion to be processed, wherein

the drill bit includes at least one cutting edge and a leading flank adjacent to the cutting edge,

the leading flank is set to have a surface roughness Ra of 2.0 ∝m or more and 3.0 ∝m or less, and

when the portion to be processed is machined by means of drilling to form a hole, the lubricant material for assisting machining process is held on the leading flank.

2. The hole formation method according to claim 1, wherein

the workpiece material has a thickness of 1.0 mm or more, and

a hole formed in the hole formation step has a diameter of 3.0 mm or more.

3. The hole formation method according to claim 1 or 2, wherein the workpiece material is a difficult-to-machining metal material.

4. The hole formation method according to claim 1 or 2, wherein the workpiece material is a fiber-reinforced composite material.

5. The hole formation method according to claim 1 or 2, wherein the workpiece material is a material in which a difficult-to-machining metal material is in close contact with a fiber-reinforced composite material.

6. The hole formation method according to claim 3 or 5, wherein the difficult-to-machining metal material is any one material selected from the group consisting of a titanium alloy, an aluminum alloy, a magnesium alloy, a low alloy steel, a stainless steel, and a heat-resistant alloy.

7. The hole formation method according to claim 3 or 5, wherein the difficult-to-machining metal material is a Ti-6Al-4V titanium alloy.