PATENT CLAIMS

1. A seal for a sill-free door for sealing a gap between a door leaf and a floor, wherein the seal comprises a carrier rail and a sealing profile which is held on the carrier rail, wherein the sealing profile comprises a substantially u-shaped cross section with two legs and a sealing crosspiece, which connects the two legs together and is intended for resting with sealing action on the floor, wherein a cavity is present and is defined by an underside of the carrier rail, the legs and the sealing crosspiece, and wherein the sealing profile comprises, on each leg, at least one strip, which is arranged on an inner side of the leg and projects into the cavity, for the purpose of improving sound insulation,
wherein at least two strips have a thickness which is greater than the thickness of the adjacent region of the leg and wherein at least one of the strips comprises a substantially rectangular cross section, wherein one side of the rectangle is curved in the form of part of a circle, and wherein said side forms a free end of the strip, said free end projecting into the cavity.

2. The seal as claimed in claim 1, wherein at least one of the strips is spaced apart from the underside of the carrier rail.

3. The seal as claimed in either of claims 1 and 2, wherein strips arranged on different legs are arranged in a mirror-symmetrical manner with respect to one another along a transverse center axis of the seal, wherein they are designed in a mirror-symmetrical manner with respect to one another along said transverse center axis.

4. The seal as claimed in any one of claims 1 to 3, wherein at least one of the strips terminates at a distance from the transverse center axis of the seal.

5. The seal as claimed in any one of claims 1 to 4, wherein all the strips arranged on the legs terminate at a distance from one another.

6. The seal as claimed in any one of claims 1 to 5, wherein the sealing crosspiece is designed to be thinner than a region of the legs which is adjacent to the strips.

7. The seal as claimed in any one of claims 1 to 6, wherein at least one of the strips is of hollow or solid design.

8. The seal as claimed in any one of claims 1 to 7, wherein the outer side of the sealing crosspiece is free of protrusions or ribs which are directed downward in the direction of the floor.

9. The seal as claimed in any one of claims 1 to 8, wherein the sealing crosspiece is of curved design.

10. The seal as claimed in one of claims 1 to 9, wherein the two legs merge into the sealing crosspiece by way of a tapering step in each case.

11. The seal as claimed in any one of claims 1 to 10, wherein at least one partitioning element is present, wherein the at least one partitioning element projects inward into the cavity and it is arranged on the sealing crosspiece.

12. The seal as claimed in claim 11, wherein the at least one partitioning element is at least one upwardly projecting rib.

13. The seal as claimed in claim 11, wherein the at least one partitioning element is an angled crosspiece with two ends and two angles, wherein the two ends are arranged on the sealing crosspiece at a distance from one another.

14. The seal as claimed in any one of claims 1 to 13, wherein the seal also comprises a housing rail, wherein the carrier rail and sealing profile form a sealing bar, and wherein said sealing bar is held in the housing rail such that it can be lowered and raised relative to the housing rail.