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Every finite group  $G$  acts as an automorphism group of some non-orientable Klein surfaces without boundary. The minimal genus of these surfaces is called the symmetric crosscap number and denoted by  $\tilde{\sigma}(G)$ .

This number is related with other parameters defined on surfaces as the symmetric genus and the strong symmetric genus.

Here we obtain the symmetric crosscap number for the groups  $C_m \times D_n$ . As an application of this result we obtain arithmetic sequences of integers which are the symmetric crosscap number of some group. Finally we recall the several different genera of the groups  $C_m \times D_n$ . (Received February 20, 2007)