If $G$ is any graph, the *prism graph* of $G$, denoted $P(G)$, is the cartesian product of $G$ with a single edge, or equivalently, the graph obtained by taking two copies of $G$, say $G_1$ and $G_2$, with the same vertex labelings and joining each vertex of $G_1$ to the vertex of $G_2$ having the same label by an edge. A connected graph $G$ has property $E(m,n)$ (or more briefly “$G$ is $E(m,n)$”) if for every pair of disjoint matchings $M$ and $N$ in $G$ with $|M| = m$ and $|N| = n$ respectively, there is a perfect matching $F$ in $G$ such that $M \subseteq F$ and $N \cap F = \emptyset$. A graph which has the $E(m,0)$ property is also said to be $m$-*extendable*. In this paper, we begin the study of the $E(m,n)$ properties of the prism graph $P(G)$ when $G$ is an arbitrary graph as well as the more special situations when, in addition, $G$ is bipartite or bicritical. (Received September 04, 2016)