Lemma. Consider $\mathbf{d}, \mathbf{e} \in \mathrm{Hom}_{\mathbf{DP}}(\mathbf{P}; \mathbf{Q})$ and $\mathbf{g} \in \mathrm{Hom}_{\mathbf{DP}}(\mathbf{R}; \mathbf{S})$. One has

$$(\mathbf{d} \wedge \mathbf{e}) \otimes \mathbf{g} = (\mathbf{d} \otimes \mathbf{g}) \wedge (\mathbf{e} \otimes \mathbf{g}).$$