On a family of surfaces with $p_g = q = 2$ and $K^2 = 7$

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In this talk we shall study a family of surfaces of general type with $p_g = q = 2$ and $K^2 = 7$, originally constructed by C. Rito. We provide an alternative construction of these surfaces, that allows us to describe their Albanese map and the corresponding locus $\mathcal{M}$ in the moduli space of the surfaces of general type. In particular we prove that $\mathcal{M}$ is an irreducible component, two dimensional and generically smooth.