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Suppose that E_i is a C^* -correspondence over the C^* -algebra A_i , $i = 1, 2$. A (strong) *Morita equivalence* between (A_1, E_1) and (A_2, E_2) is an invertible C^* -correspondence X from A_1 to A_2 such that $E_1 \otimes_{A_1} X \simeq X \otimes_{A_2} E_2$. In *Proc. London Math. Soc.* **81** (2000), 113–168, we showed that a Morita equivalence between (A_1, E_1) and (A_2, E_2) induces a strong Morita equivalence between the corresponding tensor algebras $\mathcal{T}_+(E_1)$ and $\mathcal{T}_+(E_2)$ in the sense of Blecher, Muhly and Paulsen in the *Memoirs of the AMS* **143** (2000), no. 681. In this talk we will make precise the sense in which a strong Morita equivalence between (A_1, E_1) and (A_2, E_2) induces an isometry between the space of completely contractive representations of $\mathcal{T}_+(E_1)$ and the completely contractive representations of $\mathcal{T}_+(E_2)$ and discuss other features of the representation theory of tensor algebras that are preserved under this notion of Morita equivalence. (Received September 09, 2009)