

## **fpf-compatible-join-cap<sup>11,40</sup>**

$\forall A:\text{Type}, eq:\text{EqDecider}(A), B:(A \rightarrow \text{Type}), f,g:\text{fpf}(A; a.B(a)), x:A, z:B(x).$   
 $\text{fpf-compatible}(A; a.B(a); eq; f; g)$   
 $\Rightarrow (\text{fpf-cap}(\text{fpf-join}(eq; f; g); eq; x; z)$   
 $=$   
 $\text{fpf-cap}(g; eq; x; \text{fpf-cap}(f; eq; x; z))$   
 $\in B(x))$