rel-pre-preserving-compose[11,40]

$\forall es$:ES, P, Q:(E$\rightarrow \mathbb{P}$), R:(E$\rightarrow$E$\rightarrow \mathbb{P}$), f_1:($\{e$:E$|\ P(e)\} \rightarrow \{e$:E$|\ Q(e)\}$), f_2:($\{e$:E$|\ Q(e)\} \rightarrow$E).
(f_1 is R-pre-preserving on P & f_2 is R-pre-preserving on Q)
$\Rightarrow f_2$ o f_1 is R-pre-preserving on P

http://www.nuprl.org/FDLcontent/p0_963683_/p29_380037_{rel-pre-preserving-compose}.html