1. $\mathcal{P}_{-} = \int_{-\infty}^{0} \underline{\Phi(x,t)}.\underline{\Phi(x,t)}^{*}.dx$

2. La fonction d'onde doit être normalisée : $\mathcal{P}_{tot} = \int_{-\infty}^{\infty} \underline{\Phi(x,t)}.\underline{\Phi(x,t)}^{*}.dx = 1$

Or $\mathcal{P}_{tot} = \infty_{-\infty}^{\infty} \underline{\Phi(x)}.\underline{\Phi(x)}^{*}.dx = \int_{-\infty}^{0} \underline{\Phi(x)}.\underline{\Phi(x)}^{*}.dx + \int_{0}^{\infty} \underline{\Phi(x)}.\underline{\Phi(x)}^{*}.dx$

La fonction étant réelle impaire, $\int_{-\infty}^{0} \underline{\Phi(x)}.\underline{\Phi(x)}^{*}.dx = \int_{0}^{\infty} \underline{\Phi(x)}.\underline{\Phi(x)}^{*}.dx$

Soit $\boxed{\mathcal{P}_{-} = \frac{1}{2}}$