Here are the definitions and conversions of various quantities:

The scattered pressure at the farfield can be defined as

$$p_{scat} = p_0 \frac{e^{ikr}}{r} f_{scat}(ka,\theta) = p_0 e^{ikr} \frac{a}{2r} f_\infty(ka,\theta) \tag{1}$$

where f_∞ is the form function and f_{scat} is the scattering amplitude. The radius of the sphere is a. The relation between the form function and the scattering amplitude is:

$$f_{scat}(ka,\theta) = \frac{a}{2} f_\infty(ka,\theta) \tag{2}$$

Note that the form function is dimensionless and the scattering function has a unit of length. The form function of the backscattering for a rigid & fixed sphere is

$$f_\infty(ka,\pi) = \frac{2}{ka}\sum_{n=0}^{\infty}(-1)^n(2n+1)\frac{j_n'(ka)}{h_n'(ka)} \tag{3}$$

The asymptotic value of the form function is unity, i.e. $f_\infty(ka,\pi) \xrightarrow[ka\to\infty]{} 1$. The reduced scattering amplitude is the scattering amplitude normalized by the radius of sphere, a, and is also a dimensionless quantity:

$$f_{reduced\_scat}(ka,\pi) = \frac{f_{scat}(ka,\pi)}{a} = \frac{1}{2} f_\infty(ka,\pi) \tag{4}$$

The differential backscattering cross section is defined as:

$$\sigma_{bs}(ka) = \left|f_{scat}(ka,\pi)\right|^2 = \frac{a^2}{4}\left|f_\infty(ka,\pi)\right|^2 = a^2\left|f_{reduced\_scat}(ka,\pi)\right|^2 \tag{5}$$

The target strength (TS) is

$$TS = 10\log_{10}\left(\sigma_{bs}(ka)/A\right), \quad \text{with } A = 1\,m^2 \tag{6}$$

Hence, the relation between the TS and the scattered pressure is

$$\begin{aligned} TS &= 20\log_{10}\left|\frac{p_{scat}}{p_0} r\right| = 20\log_{10}\left|a\, f_{reduced\_scat}(ka,\pi)\right| \\ &= 20\log_{10}\left|f_{reduced\_scat}(ka,\pi)\right| + 20\log_{10} a \\ &= RTS + 20\log_{10} a \end{aligned} \tag{7}$$

In other words, to convert the normalized scattering amplitude to TS, you need to add $20\log_{10} a = 20\log_{10} 0.25 = -12$ dB. The level of the normalized TS, or RTS, is about -6 dB, so the absolute TS based on the RTS is -18 dB.

Also, from (5), the theoretically asymptotic TS of a rigid sphere is

$$TS(\infty) = 10\log_{10} \sigma_{bs}(\infty) = 10\log_{10}\left(\frac{a^2}{4}\right) = 10\log_{10}\left(\frac{0.25^2}{4}\right) = -18.06 \text{ dB} \qquad (8)$$

In summary, if the output from COMSOL is the scattered pressure, i.e. p_{scat}, I think there is something wrong with the result from COMSOL Multiphysics.