

HOW TO:

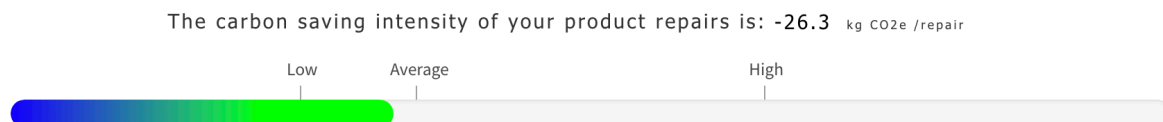
FRC Standard Carbon Calculator

Calculate TOTAL CO₂e savings for larger quantities or weights of products

If your Repair Cafe has delivered many successful repairs and you want to use the online FRC **Standard** Calculator to estimate your total CO₂e savings, you might be asking how can this be done when there is an input limit of 200 items or 250 kg per category? The following examples are designed to show how you can overcome these limits and retain the calculation methodology.

1: Example using **Quantity** as your input

You want to find the emission saving (kg CO₂e) for 523 successful electrical repairs. The first step is to find the carbon saving intensity per repair for electrical repairs. Input '1' as the quantity into the 'Electricals' repair category and click the 'Calculate' button. If you scroll down on the calculator results page you will see a figure stated as 'The carbon saving intensity of your product repairs is: -26.3 kg CO₂e /repair'.



The second step is to Multiply the carbon saving intensity by the Quantity of electrical repairs, so $-26.3 \times 523 = -13,755$ kg CO₂e. This is your total emission saving for Electricals. This process can be repeated for all repair categories.

The third step is to Add the emission saving totals for each category together to calculate your Total emission saving. The table below shows an example calculation across all FRC **Standard** Calculator categories. You can use the **RED** figures shown in the table for each repair category in your own calculation. This saves you having to obtain each of these figures individually as described above (in the first step) from the online calculator.

	A	B	A x B
Repair category	Number of successful repairs Input your own figures!	Carbon saving intensity (kg Co2e / repair) You can use these figures	Total emission saving for repair category (kg CO2e)
Bicycles	350	-126.6	-44310
Tablets/Phones/Computers	300	-221.5	-66450
Electricals	523	-26.3	-13755
Mechanical	500	-14.5	-7250
Clothing/Textiles	160	-10.9	-1744
Furniture	490	-7.7	-3773
Jewellery	71	3.4	241
Other	845	-24	-20280
		Total emission saving (kg CO2e)	-157321

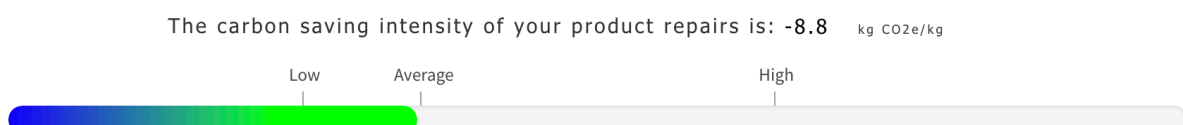
Reductions (savings) are shown as being negative, and increased emissions as positive.

Unfortunately Jewellery was shown to be a positive and not negative GHG emitter when repaired, hence it does not contribute to a reduction of emissions. Ensure therefore that when multiplying and summing you observe the carbon saving intensity per repair number's polarity (+/-).

Once the total calculation has been made you can report this as a Total emission saving of 157,321 kg CO₂e

2: Example using **Weight** as your input (*Most accurate emission savings approach*)

You want to find the emission saving (kg CO₂e) for 400 kg of successful electrical repairs. The first step is to find the carbon saving intensity per kg for electrical repairs. Input '250' as the Weight (do not use '1' as the result may have a larger rounding error) into the 'Electricals' repair category and click the 'Calculate' button. If you scroll down on the calculator results page you will see a figure stated as 'The Carbon Saving Intensity of your product repairs is: -8.8 kg CO₂e /kg' (repaired).



The second step is to Multiply the carbon saving intensity by the Weight of electrical repairs, so $-8.8 \times 400 = -3,520$ kg CO₂e. This is your total emission saving for Electricals. This process can be repeated for all categories.

The third step is to Add the emission saving totals for each category together to calculate your Total emission saving. The table below shows an example calculation across all FRC **Standard** Calculator categories. The **RED** figures shown can be used in your calculation, this saves you having to obtain these figures as described above (in the first step) from the online calculator.

	A	B	A x B
Repair Category	Weight of successful repairs (kg) Input your own figures!	Carbon saving intensity per kg repaired (kg Co ₂ e /kg) You can use these figures	Total emission saving for repair category (kg CO ₂ e)
Bicycles	280	-8.4	-2352
Tablets/Phones/Computers	325	-123.1	-40008
Electricals	400	-8.8	-3520
Mechanical	450	-2.6	-1170
Clothing/Textiles	330	-15.7	-5181
Furniture	375	-1.1	-413
Jewellery	2.5	45.2	113
Other	765	-10	-7650
		Total emission saving (kg CO ₂ e)	-60180

Reductions (savings) are shown as being negative, and increased emissions as positive.

Unfortunately Jewellery was shown to be a positive and not negative GHG emitter when repaired, hence it does not contribute to a reduction of emissions. Ensure therefore that when multiplying and summing you observe the carbon saving intensity per kg repaired number's polarity (+/-).

Once the total calculation has been made you can report this as an Emission saving of 60,180 kg CO₂e

Note: Due to some rounding of values you may see slightly different total savings between the

online calculator and the calculation table spreadsheet approach described (using compatible input data), but the results should be within a very small percentage of each other if calculated correctly.

End.