



How much adhesive will I need?

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Calculating Volume of Adhesive Required

To calculate approximately how much material is required, try using the following calculation:

$$\text{Bondline thickness (mm)} \times \text{Total surface area of bondline (m}^2\text{)} = \text{Volume of adhesive required (L)}$$

Bondline thickness can range from 0.05mm for a very thin adhesive, right up to 0.40mm for a thick material, or more where there is gap filling required. If in doubt, use 0.20mm, which will be a safe compromise for many applications.

As a rough guide, this table shows approximately how much area can be covered by 1 litre of material, depending on the size of the bondline:

Calculate Now!

Try using our Adhesive Usage Calculator for an easy way to calculate volume and weight of adhesive required.

Bondline thickness (mm)	Theoretical surface area covered by 1L of material (m ²)
0.05	20
0.15	7
0.20	5
0.25	4
0.40	2.5

Calculating Weight of Adhesive Required

Once the volume has been calculated, the equivalent weight can be calculated in this way:

$$\text{Volume of adhesive (L)} \times \text{Specific gravity of adhesive (SG)} = \text{Weight of adhesive required (kg)}$$

Specific gravity can be found on the material's data sheet; it is a measure of density. If the SG cannot be found on the data sheet, use 1.0 for very thin, clear or watery adhesives, and 1.5 for very thick, heavily filled, viscous adhesives. If in complete doubt, use 1.1.

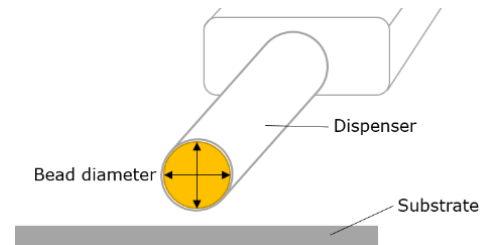
Theoretical Yields of Various Package Sizes

The tables below shows approximately how much each pack volume could yield in bead length or number of dots depending on the bead diameter.

		Linear yield by package size					
		30ml	50ml	200ml	310ml	400ml	1L
Bead diameter	1mm	38m	64m	255m	395m	509m	1273m
	2mm	9.5m	16m	64m	99m	127m	318m
	3mm	4.2m	7.1m	28m	44m	57m	141m
	4mm	2.4m	4.0m	16m	25m	32m	80m
	5mm	1.5m	2.5m	10m	16m	20m	51m
	6mm	1.1m	1.8m	7m	11m	14m	35m

		Number of dots yielded by package size					
		30ml	50ml	200ml	310ml	400ml	1L
Dot diameter	2mm	7,160	11,940	47,800	74,000	95,500	238,700
	4mm	900	1,500	6,000	9,300	12,000	29,900
	6mm	270	450	1,800	2,800	3,600	8,900
	8mm	120	190	800	1,200	1,500	3,800
	10mm	60	100	400	600	800	2,000

These theoretical values are calculated where the bead line is an assumed circle and the bead diameter is measured from the dispenser. They are intended as a guide only.



Points to Consider

- Allow for wastage in the volume calculated. Wastage can occur from using mixing nozzles, material feeds from pressure pots or other reservoirs – particularly in the tubing, requiring purging in the process and more.
- Allow for process error in the volume calculated, for example, human error.
- Consider the properties of the substrates the adhesive is being applied to, for example the absorbency or condition of the substrate.

This technical bulletin and [Adhesive Usage Calculator](#) should be used as a rough guide to understand how much adhesive you may need. For more help with calculating how much adhesive you will need, [please contact our product specialists](#) who can advise based on your specific needs.



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