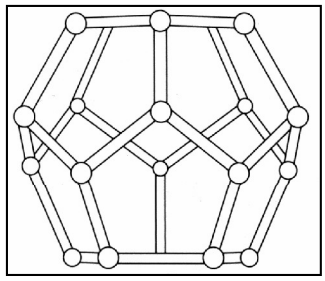
Zotefoams plc



Technical Information Sheet – TIS 22
(previously BTI8)
Advice for Splitting and Slicing of Azote Foams

Plastazote® foam and Evazote® foam are supplied in buns/sheets with manufacturing skins intact. Thickness will vary according to the grade. Most fabrication operations require that the skin is removed from one or both faces and that the sheet be split to a specific thickness. An industrial splitter such as the horizontal type KII made by Fecken Kirfel is suitable, though other types and makes are satisfactory including vacuum table models. This latter type may need adjustment to enable the last split to be close to the table for maximum yield.

The blade on splitting machines is a steel band-knife typically about 7.5cm wide and 1mm thick, without teeth. The cutting edge is capable of being lightly and continuously honed to maintain its sharpness. This continuous sharpening is important for splitting foams.

Zotefoams plc has developed recommended blade angles for each of its three main product groups - Plastazote® LD foam, Plastazote® HD foam, and Evazote® foam. The blade angles differ as foams range from hard to soft and resilient so for each there is a preferred blade angle to achieve splitting performance. However, satisfactory results may be obtained for all foams using standard blade angles based on those recommend for Plastazote® LD foam.

Recommended splitter blade angles are given at the end of this note.
If the blade cutting angle is changed, adequate time must be allowed for honing to stabilise the blade angle: approximately two hours for an existing blade and four hours for a new blade.

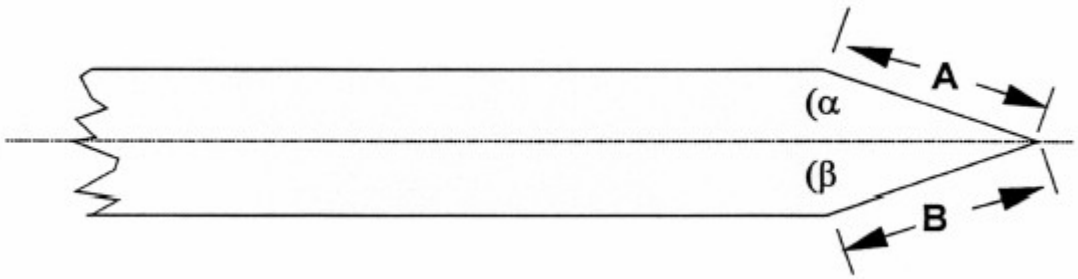
Problems can arise in splitting softer foams such as Evazote® foam (VA and EV grades) and particularly Supazote® foam, due to the toughness of these materials and high blade friction in the cutting zone. Such problems can be minimised by ensuring there is adequate distance between the blade cutting edge and the centre line of the drive rollers (5-20mm recommended, dependent on machine type), and as little pressure as possible.

Static electricity build-up during splitting is common and should be avoided. It can cause operator discomfort and could be a safety hazard. It also causes difficulty in handling thin sheets. Static charges are best eliminated using HT antistatic ioniser bars on the take-off side of the splitter across the whole width of the machine both above and below the materials.

Important note

The use of silicone blade lubricants is unnecessary and should be avoided if later operations include adhesive or heat laminating, or any process where adhesion is needed such as the use of epoxy or polyester resins.

Recommended splitter blade angles



	α [°]	β [°]	A [mm]	B [mm]
Plastazote® LD Grades	5.7	9.6	5	3
Plastazote® HD Grades	7.2	9.6	4	3
Evazote® All Grades	9.6	5.7	3	5

Note: Honed widths A and B are based on blades 1mm thick.

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