

Trowel Notch Sizes for Installation of Floor Coverings, Wood Flooring and Tiles

Version: May 2007

Prepared by the Technische Kommission Bauklebstoffe (TKB)
(Technical Commission on Construction Adhesives) of Industrieverband
Klebstoffe e.V. (German Adhesives Association), Düsseldorf,

with collaboration of:

- Richard Kille – Institut für Fußboden- und Raumausstattung IFR, Köln
- Bundesverband Estrich und Belag e.V., Troisdorf
- Zentralverband Parkett und Fußbodentechnik, Bonn
- Zentralverband Raum und Ausstattung, Bonn
- Hauptverband Farbe – Gestaltung – Bautenschutz, Frankfurt
- Bundesverband der vereidigten Sachverständigen für Raum und Ausstattung e.V., Bonn
- Recognized experts for flooring technology
- Recognized tool manufacturers

Contents

1.	Intended purpose and scope of application ...2
2.	Notched trowels and spatulas2
2.1	Terms and designations2
2.2	Dimensional specifications2
2.3	Tolerances2
2.4	Material.....3
2.5	Labelling3
3.	TKB trowel notch sizes designations, measurements and illustrations.....3

1. Intended purpose and scope of application

For installation of floor coverings, wood flooring and tiles, adhesives, thin bed mortar and similar products are spread (combed) onto the substrate commonly using grooved (notched) spatulas or trowels. The notches of the respective trowels permit flow of the substance to be applied which will then settle on the substrate in the form of strips (ridges). Consequently, the quantity of applied material per unit area essentially depends on the geometry of the notches. This data sheet describes the individual measurements of notches and assigns specific TKB-codes which may then be used to label notched tools complying with the measurements and tolerances specified in this data sheet.

2. Notched spatulas and trowels

2.1 Terms and designations

Notched spatula/notched trowel

Rectangular or trapezoidal sheet steel, with evenly spaced grooves on at least one long side, commonly designated as "notches". Normally, spatulas have a hand grip opposite the grooved (notched) side; with trowels, the hand grip is attached parallel to the sheet surface.

Notched strips/grooved strips

Rectangular, narrow sheet steel strips with evenly spaced grooves (notches) on one or both long sides.

Master spatula/master trowel

Spatulas or trowels with a clamping fixture on the long side to insert or easily change notched strips whenever needed.

Notch/groove shapes

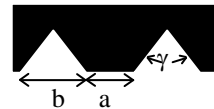
Depending on the application and the desired ridge profile, notches may have a triangular, rectangular, U-shaped or semicircular shape.

2.2 Dimensional specifications

The letters in the following schematic representations identify different dimensional specifications as follows:

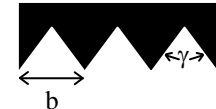
a	=	bridge width or groove clearance
b	=	notch width or groove width
c	=	notch depth or groove depth
γ	=	notch angle

Triangular Notch



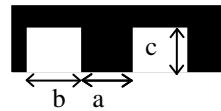
Triangular Notch

Special Shape S, pointed Notch



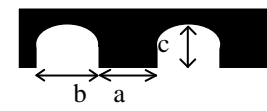
Rectangular Notch

Special R-Shape



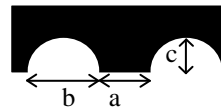
Round Notch

Special U-Shape



Round Notch

Special M-Shape



For manufacturing reasons, the inner points of the triangular notches and the inner right angles of the rectangular notches are rounded off. The radius of curvature is 0.2 mm to 0.3 mm, on average 0.25 mm.

A special type of the triangular notch is the "pointed notch" with a bridge width "a" of 0 mm to 0.2 mm. Other special types of notches with rounded off tops include U-notches, where the end of the notch is a semicircle with a diameter of "b" and M-notches (mortar notch), an almost true semicircular notch with diameter "b".

2.3 Tolerances

The specified sizes in table 2 "Specified TKB trowel notch sizes" are average values to be established by controlled sampling.

Table 1: Tolerances

Dimensional specifications	Tolerance
a	+/- 0.1 mm
b	+/- 0.1 mm
(a + b)	+/- 0.1 mm
c	+/- 0.1 mm
γ	+/- 0.5 °

2.4 Material

Depending on material hardness and thickness of the sheet steel, notched strips wear out more or less quickly. Accordingly, notch area and consequently flow rate gradually decrease. To ensure long durability of the notched strips, we recommend using spring steel with a minimum hardness of 46 Rockwell or higher. Thickness of the sheet steel shall not fall below 0.5 mm.

2.5 Labelling

Notched trowels fully complying with specifications of this data sheet and subject to adequate quality controls shall preferably be labelled by manufacturer as follows:




Manufacturer / TKB notch size code / Year

3. TKB trowel notch sizes – designations, dimensional specifications and illustrations

Table 2: Specified TKB trowel notch sizes

TKB Notch Size	a in mm	b in mm	c in mm	γ in degrees	Illustrations Actual Size
A1	0.50	1.50	1.10	55.0	
A2	1.30	1.70	1.40	55.0	
A3	0.40	1.60	1.50	45.0	
A4	0.40	1.10	0.75	55.0	
A5	1.45	1.35	1.00	55.0	
B1	2.60	2.40	2.00	55.0	
B2	2.00	3.00	2.55	55.0	
B3	3.30	3.70	3.25	55.0	
B5	14.30	5.70	5.15	55.0	
B6	4.90	4.10	3.60	55.0	
B7	4.40	3.60	3.90	45.0	
B8	3.90	4.10	3.60	55.0	
B9	9.90	6.10	5.00	60.0	
B10	9.90	5.10	5.70	45.0	
B11	7.90	6.10	5.00	60.0	

TKB Notch Size	a in mm	b in mm	c in mm	γ in degrees	Illustrations Actual Size
B12	4.90	5.10	5.10	50.0	
B13	11.40	7.10	6.50	55.0	
B14	5.90	6.10	5.55	55.0	
B15	6.90	5.60	6.30	45.0	
B16	11.90	8.10	7.45	55.0	
B17	3.90	6.60	9.85	35.0	
C1	4.00	4.00	4.00	R	
C2	6.00	6.00	6.00	R	
C3	3.00	3.00	3.00	R	
C4	8.00	8.00	8.00	R	
C5	10.00	10.00	10.00	R	
S1	0.10	1.80	2.55	30.0	
S2	0.10	4.20	3.35	60.0	
S3	0.10	2.50	1.75	65.0	
S4	0.10	10.30	5.05	90.0	
R1	1.50	4.00	3.00	R	

TKB Notch Size	a in mm	b in mm	c in mm	γ in degrees	Illustrations Actual Size
R2	2.00	4.00	5.00	R	
R3	2.40	6.00	5.00	U	
M1	7.30	20.00	12.00	M	

Notch depths c for triangular notches have been calculated.