

Sizing form for infiltration systems

(according to ATV-DVWK-A 138)

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Infiltration type	Property type	Preferred GRAF products	
<input type="checkbox"/> Infiltration module	<input type="checkbox"/> Private	<input type="checkbox"/> EcoBloc Inspect flex	<input type="checkbox"/> EcoBloc maxx
<input type="checkbox"/> Combined swale & infiltration module	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Infiltration Tunel	<input type="checkbox"/> EcoBloc light
	<input type="checkbox"/> Municipal	<input type="checkbox"/> Infiltration Tunel Twin	<input type="checkbox"/> Rain-Bloc
	<input type="checkbox"/>	<input type="checkbox"/> Platin Infiltration	<input type="checkbox"/> Platin Infiltration Plus ³⁾
		<input type="checkbox"/> Herkules infiltration tank	

Installation situation

Distance from groundwater (ground level to max. groundwater level)	m
Loading capacity <input type="checkbox"/> Pedestrian <input type="checkbox"/> Vehicle-loading <input type="checkbox"/> 12 t / H-10, H-15 <input type="checkbox"/> 30 t <input type="checkbox"/> 40 t / HS-20 <input type="checkbox"/> 60 t / H-25	
Area available for infiltration (length x width)	m x m

1) Rainwater harvesting with Platin Infiltration Plus

Desired rainwater harvesting volume	Litres
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Recommended mean runoff coefficient Ψ_m according to ATV-DVWK-A 117 & ATV-DVWK-M 153 (German standards)

Surface type/soil	<input type="checkbox"/> Gravel	<input type="checkbox"/> Medium sand	<input type="checkbox"/> Fine sand	<input type="checkbox"/> Silt	Clay (No infiltration possible)
Permeability coefficient k_f (m/s)	$1 \cdot 10^{-3}$	$1 \cdot 10^{-4}$	$1 \cdot 10^{-5}$	$1 \cdot 10^{-6}$	$1 \cdot 10^{-7}$

Surface type/roof	Type of runoff	Runoff coefficient Ψ_m	m ² Area
Pitched roof	Metal, glass, slate, fibre cement	0,9 – 1,0	
	brick, roofing felt	0,8 – 1,0	
Flat roof (incline up to 3° or approx. 5 %)	Metal, glass, fibre cement	0,9 – 1,0	
	Roofing felt, roofing film	0,9	
	Gravel	0,7	
Green roof (incline up to 15° or approx. 25 %)	Topsoil layer < 10 cm	0,5	
	Topsoil layer < 10 cm	0,3	
Roads, paths and public areas (flat)	Asphalt, jointless concrete	0,9	
	Paving with sealed joints	0,75	
	Solid gravel	0,6	
	Paving with open joints	0,5	
	Loose gravel, gravel lawn	0,3	
	Composite stone with joints, permeable stone	0,25	
	Grass pavers	0,15	
Embankments, verges and trenches with rain run-off to drainage system	Clay soil	0,5	
	Loamy sandy soil	0,4	
	Gravel and sandy soil	0,3	
Gardens, meadows and cultivated land with potential rain run-off to drainage system	Flat terrain	0,0 – 0,1	
	Steep terrain	0,1 – 0,3	

