

Twilled Dutch Weave - Technical Data

Geometrical pore size μm	Cloth-Designation	Elastic Limit warp/fill Rp N/cm	Number of Pores N Poren/cm ²	AsK mm ² /cm	AsS mm ² /cm	Porosity %	A _{0rel} %	Weight kg / m ²	Cloth Thickness mm	Eu
6	510 x 3600	40 / 100	142.000	0,10	0,25	35	5	0,28	0,05	5.033
8	450 x 2750	35 / 140	94.000	0,09	0,33	33	4	0,35	0,06	4.959
8	375 x 2300	60 / 160	63.000	0,12	0,42	33	4	0,46	0,08	4.766
10	350 x 2600	55 / 148	72.800	0,11	0,39	38	6	0,39	0,08	3.064
10	325 x 2300	65 / 160	54.000	0,15	0,42	34	4	0,46	0,08	3.196
14	200 x 1400	140 / 230	21.000	0,30	0,67	33	4	0,81	0,15	2.505
18	200 x 2000	65 / 180	32.000	0,15	0,48	42	8	0,50	0,11	1.193
21	165 x 1100	130 / 230	14.520	0,25	0,69	36	5	0,81	0,16	1.472
21	165 x 1400	130 / 230	17.000	0,25	0,67	37	6	0,76	0,15	1.320
46	80 x 700	130 / 480	4.500	0,25	1,25	38	7	1,18	0,25	523
88	40 x 560	200 / 600	1.700	0,40	1,67	44	11	1,72	0,38	208
121	30 x 360	280 / 900	840	0,58	2,50	42	9	2,49	0,55	181
166	20 x 250	180 / 1300	380	0,39	3,67	39	6	3,34	0,69	168
30*	*165 x 800	130 / 270	10.200	0,25	0,67	46	8	0,74	0,17	532
30*	*200 x 600	110 / 150	9.300	0,22	0,38	59	9	0,48	0,15	237

*Broad-mesh twilled dutch weave. Pore sizes are determined using the glass bead test.

The particles pass through five cross-laid sections of apertures when flowing through twill weaves. In this process, long, thin, rod-shaped and fibrous particles are held back reliably.

A_{0rel}: = theoretical free flow area, through which the filtrate can flow relative to the area subject to the flow.

AsK and AsS: the effective cross section of the cutting edges, which run perpendicular to the wires to absorb drag. AsK = warp direction. AsS = fill direction.

Rp = maximum permissible stress on the cloth in the warp or fill direction without causing lasting and significant deformation.

The **porosity, weight and thickness** are approximate values. These depend largely on the tolerance of the wires.

Eu: The non-dimensional Euler number describes the ratio of pressure forces to inertial forces for the different weave specifications at similar flow conditions. The higher the Euler number of a weave specification, the higher the pressure loss of this weave specification will be. The Euler number allows comparison of differing weave specifications in terms of pressure loss.

The **geometric pore size** defines the diameter of the largest sphere passing through the weave.

The values given are typical values for the filter cloths. They should not be used to infer any warranted qualities.

Spoerl reserves the right to make technical changes and improvements at any time.