

TABLE 9. COEFFICIENTS OF TRANSMISSION (U) FOR PIPES INSULATED WITH LAMINATED ASBESTOS TYPE INSULATION (30 TO 40 LAMINATIONS PER INCH THICKNESS)

These coefficients are expressed in Btu per hour per square foot of pipe surface per degree Fahrenheit difference in temperature between pipe and surrounding still air at 70 F

THICKNESS OF INSULATION (INCHES)	NOMINAL PIPE SIZE (INCHES)	HOT WATER				STEAM		
		120 F	150 F	180 F	210 F	227.1 F (5 Lb)	297.7 F (50 Lb)	337.9 F (100 Lb)
		TEMPERATURE DIFFERENCE						
		50 F	80 F	110 F	140 F	157.1 F	227.7 F	267.9 F
1	1/8	0.605	0.620	0.635	0.650	0.658	0.695	0.716
	3/16	0.546	0.560	0.573	0.586	0.594	0.627	0.645
	1/4	0.498	0.510	0.522	0.534	0.541	0.570	0.587
	5/16	0.457	0.468	0.480	0.491	0.497	0.525	0.540
	3/8	0.432	0.442	0.453	0.464	0.470	0.496	0.511
	1/2	0.406	0.416	0.426	0.437	0.442	0.467	0.481
	3/4	0.385	0.395	0.405	0.415	0.420	0.443	0.457
	1	0.370	0.379	0.389	0.398	0.403	0.425	0.438
	1 1/8	0.359	0.367	0.376	0.385	0.390	0.413	0.426
	1 1/4	0.349	0.358	0.366	0.375	0.380	0.402	0.414
	1 1/2	0.341	0.350	0.359	0.367	0.372	0.393	0.405
	1 3/4	0.334	0.342	0.351	0.359	0.364	0.384	0.395
1 1/2	2	0.327	0.335	0.343	0.351	0.356	0.376	0.387
	2 1/2	0.314	0.322	0.330	0.338	0.343	0.362	0.373
	3	0.304	0.312	0.320	0.328	0.332	0.350	0.361
	3 1/2	0.301	0.308	0.316	0.324	0.328	0.346	0.356
	4	0.502	0.514	0.526	0.539	0.546	0.577	0.595
	4 1/2	0.450	0.461	0.473	0.484	0.490	0.517	0.532
	5	0.405	0.415	0.426	0.436	0.442	0.466	0.480
	6	0.369	0.378	0.387	0.396	0.401	0.423	0.435
	7	0.343	0.352	0.361	0.370	0.375	0.397	0.409
	8	0.321	0.329	0.337	0.345	0.350	0.369	0.380
	9	0.301	0.309	0.317	0.324	0.330	0.348	0.358
	10	0.286	0.293	0.301	0.308	0.313	0.330	0.340
2	11	0.274	0.281	0.288	0.295	0.300	0.316	0.326
	12	0.267	0.273	0.280	0.287	0.291	0.307	0.317
	13	0.259	0.266	0.272	0.279	0.283	0.299	0.308
	14	0.253	0.260	0.266	0.272	0.276	0.291	0.300
	15	0.247	0.253	0.260	0.266	0.269	0.284	0.293
	16	0.234	0.240	0.246	0.252	0.255	0.270	0.279
	17	0.223	0.229	0.235	0.241	0.245	0.258	0.266
	18	0.221	0.227	0.232	0.238	0.241	0.255	0.263
	19	0.442	0.453	0.464	0.475	0.481	0.508	0.523
	20	0.392	0.402	0.412	0.422	0.428	0.452	0.465
	21	0.352	0.360	0.369	0.378	0.383	0.405	0.417
	22	0.319	0.327	0.335	0.343	0.348	0.367	0.379
2 1/2	23	0.297	0.304	0.311	0.319	0.323	0.341	0.352
	24	0.274	0.280	0.287	0.294	0.298	0.314	0.324
	25	0.256	0.262	0.269	0.275	0.279	0.293	0.302
	26	0.243	0.249	0.254	0.260	0.264	0.277	0.285
	27	0.231	0.236	0.242	0.248	0.251	0.265	0.273
	28	0.223	0.228	0.234	0.240	0.243	0.257	0.265
	29	0.216	0.222	0.227	0.233	0.236	0.249	0.256
	30	0.210	0.215	0.220	0.225	0.228	0.241	0.248
	31	0.203	0.208	0.213	0.218	0.221	0.233	0.240
	32	0.191	0.196	0.201	0.206	0.209	0.220	0.227
	33	0.182	0.187	0.192	0.196	0.199	0.210	0.215
	34	0.178	0.183	0.187	0.192	0.195	0.205	0.210

TABLE 10. COEFFICIENTS OF TRANSMISSION (U) FOR PIPES INSULATED WITH LAMINATED ASBESTOS TYPE INSULATION (APPROXIMATELY 20 LAMINATIONS PER INCH THICKNESS)

These coefficients are expressed in Btu per hour per square foot of pipe surface per degree Fahrenheit difference in temperature between pipe and surrounding still air at 70 F

THICKNESS OF INSULATION (INCHES)	NOMINAL PIPE SIZE (INCHES)	HOT WATER				STEAM		
		120 F	150 F	180 F	210 F	227.1 F (5 Lb)	297.7 F (50 Lb)	337.9 F (100 Lb)
		TEMPERATURE DIFFERENCE						
		50 F	80 F	110 F	140 F	157.1 F	227.7 F	267.9 F
1	1/8	0.910	0.925	0.940	0.956	0.964	1.001	1.022
	3/16	0.823	0.836	0.850	0.863	0.871	0.902	0.921
	1/4	0.748	0.760	0.773	0.785	0.792	0.823	0.840
	5/16	0.686	0.698	0.710	0.721	0.728	0.756	0.771
	3/8	0.649	0.659	0.671	0.682	0.688	0.716	0.731
	1/2	0.610	0.620	0.630	0.640	0.647	0.671	0.685
	3/4	0.581	0.590	0.600	0.609	0.615	0.638	0.651
	1	0.558	0.567	0.576	0.585	0.591	0.613	0.626
	1 1/8	0.539	0.548	0.557	0.566	0.571	0.592	0.604
	1 1/4	0.524	0.532	0.541	0.551	0.556	0.577	0.589
	1 1/2	0.514	0.522	0.530	0.539	0.544	0.564	0.575
	1 3/4	0.503	0.511	0.519	0.528	0.533	0.553	0.565
1 1/2	2	0.492	0.500	0.509	0.517	0.522	0.542	0.553
	2 1/2	0.473	0.480	0.488	0.497	0.502	0.521	0.532
	3	0.458	0.465	0.473	0.481	0.485	0.504	0.514
	3 1/2	0.452	0.459	0.467	0.475	0.478	0.497	0.507
	4	0.755	0.767	0.780	0.793	0.800	0.831	0.848
	4 1/2	0.674	0.685	0.697	0.708	0.715	0.743	0.759
	5	0.607	0.618	0.628	0.639	0.645	0.670	0.684
	6	0.553	0.562	0.572	0.581	0.587	0.610	0.622
	7	0.517	0.527	0.536	0.545	0.550	0.572	0.584
	8	0.481	0.490	0.499	0.508	0.513	0.535	0.547
	9	0.453	0.460	0.469	0.477	0.481	0.500	0.511
	10	0.429	0.436	0.444	0.452	0.456	0.475	0.485
2	11	0.412	0.419	0.427	0.434	0.438	0.456	0.465
	12	0.400	0.407	0.415	0.422	0.426	0.443	0.453
	13	0.390	0.396	0.402	0.409	0.413	0.429	0.437
	14	0.380	0.386	0.393	0.400	0.403	0.418	0.427
	15	0.369	0.375	0.382	0.389	0.392	0.408	0.417
	16	0.351	0.358	0.364	0.370	0.374	0.388	0.397
	17	0.337	0.344	0.350	0.356	0.359	0.373	0.382
	18	0.332	0.338	0.344	0.350	0.353	0.367	0.375
	19	0.664	0.675	0.687	0.698	0.704	0.732	0.747
	20	0.591	0.601	0.611	0.621	0.627	0.652	0.665
	21	0.529	0.538	0.547	0.557	0.562	0.584	0.597
	22	0.480	0.488	0.497	0.505	0.510	0.529	0.540
2 1/2	23	0.445	0.453	0.462	0.470	0.475	0.494	0.504
	24	0.412	0.420	0.427	0.434	0.438	0.455	0.464
	25	0.385	0.392	0.398	0.405	0.409	0.425	0.434
	26	0.364	0.370	0.376	0.382	0.385	0.400	0.408
	27	0.346	0.352	0.358	0.365	0.368	0.382	0.390
	28	0.336	0.342	0.348	0.354	0.357	0.371	0.378
	29	0.325	0.332	0.338	0.343	0.346	0.360	0.367
	30	0.316	0.322	0.327	0.333	0.336	0.349	0.356
	31	0.306	0.312	0.317	0.323	0.326	0.338	0.345
	32	0.288	0.293	0.298	0.303	0.306	0.317	0.324
	33	0.275	0.279	0.284	0.289	0.292	0.302	0.308
	34	0.269	0.274	0.278	0.283	0.286	0.296	0.302