



Polyamide PA12-PHL tubes

Temperature range

- 60 °C to +100 °C

Polyamide tubes are flexible and can be easily laid. They have a large temperature range and are preferred for compressed air brakes, pneumatic systems, hydraulic systems and fuel lines in accordance with DIN 73378 or in black DIN 74324. We recommend using the black model above 80 °C. The material can be recycled in accordance with the EU Directives.

Can be delivered ex warehouse

PA hoses are delivered in rolls of 50 m or 100 m fixed lengths or on drums.

* Delivery and minimum order quantity on request.

Other nominal dimensions and

Pressure utilisation degree (reference values) in %

Pressure utilisation	100%	87%	74%	64%	57%	52%	47%	44%	36%
Temperature	- 60 °C to +23 °C	+30 °C	+40 °C	+50 °C	+60 °C	+70 °C	+80 °C	+90 °C	+100 °C

Example: PA tube 8/6 - permissible Op. pressure at 50 °C (19 bar x 64%) = 12 bar permissible.

colours can be provided on request.

Colour (abbreviation)

We deliver PA hoses in:

- natural colours (nf)
- blue (bl)
- red (rt)
- black (sw)
- green (gn)
- yellow (ge)
- grey (gr)

Nominal dimensions

- AD = outer diameter
- ID = inner diameter
- (Production dimension)
- Wall thickness

Dimensions / Tolerances

AD 2.50 mm to AD 8.00 mm
+/- 0.07 mm

AD 9.00 mm to AD 13.00 mm
+/- 0.10 mm

AD 14.00 mm to AD 22.00 mm
+/- 0.15 mm

Wall thick-

Up to 1.00 mm	+/-	0.10 mm
Up to 1.25 mm	+/-	0.13 mm
Up to 1.50 mm	+/-	0.15 mm
Up to 2.00 mm	+/-	0.20 mm

Plastic hoses

Polyamide PA12-PHL tubes ●

Product No.	Type	Nominal dimensions		Wall thick- ness mm	Colour	Op. pressure 20 °C bar	Min. bending radius mm	Weight g/m
		AD mm	ID mm					
	PA12-PHL	2.5	1.5	0.5	Natural	30	10	3.2
	PA12-PHL	2.5	1.5	0.5	Blue	30	10	3.2
	PA12-PHL	2.5	1.5	0.5	Red	30	10	3.2
	PA12-PHL	2.5	1.5	0.5	Black	30	10	3.2
	PA12-PHL	2.5	1.5	0.5	Green	30	10	3.2
	PA12-PHL	2.5	1.5	0.5	Yellow	30	10	3.2
	PA12-PHL	2.5	1.5	0.5	Grey	30	10	3.2
	PA12-PHL	3	1.7	0.65	Natural	35	15	4.9
	PA12-PHL	3	1.7	0.65	Blue	35	15	4.9
	PA12-PHL	3	1.7	0.65	Red	35	15	4.9
	PA12-PHL	3	1.7	0.65	Black	35	15	4.9
	PA12-PHL	3	1.7	0.65	Green	35	15	4.9
	PA12-PHL	3	1.7	0.65	Yellow	35	15	4.9
	PA12-PHL	3	1.7	0.65	Grey	35	15	4.9
	PA12-PHL	4	2	1	Natural	44	20	9.7
	PA12-PHL	4	2	1	Blue	44	20	9.7
	PA12-PHL	4	2	1	Red	44	20	9.7
	PA12-PHL	4	2	1	Black	44	20	9.7
	PA12-PHL	4	2	1	Green	44	20	9.7
	PA12-PHL	4	2	1	Yellow	44	20	9.7
	PA12-PHL	4	2	1	Grey	44	20	9.7



Polyamide PA12-PHL tubes

Product No.	Type	Nominal dimensions		Wall thickness mm	Colour	Op. pressure 20 °C bar	Min. bending radius mm	Weight g/m
		AD mm	ID mm					
	PA12-PHL	4	2.3	0.85	Natural	36	20	8.7
	PA12-PHL	4	2.3	0.85	Blue	36	20	8.7
	PA12-PHL	4	2.3	0.85	Red	36	20	8.7
	PA12-PHL	4	2.3	0.85	Black	36	20	8.7
	PA12-PHL	4	2.3	0.85	Green	36	20	8.7
	PA12-PHL	4	2.3	0.85	Yellow	36	20	8.7
	PA12-PHL	4	2.3	0.85	Grey	36	20	8.7
	PA12-PHL	4	2.5	0.75	Natural	31	20	7.9
	PA12-PHL	4	2.5	0.75	Blue	31	20	7.9
	PA12-PHL	4	2.5	0.75	Red	31	20	7.9
	PA12-PHL	4	2.5	0.75	Black	31	20	7.9
	PA12-PHL	4	2.5	0.75	Green	31	20	7.9
	PA12-PHL	4	2.5	0.75	Yellow	31	20	7.9
	PA12-PHL	4	2.5	0.75	Grey	31	20	7.9
	PA12-PHL	4	2.7	0.65	Natural	23	20	7.1
	PA12-PHL	4	2.7	0.65	Blue	23	20	7.1
	PA12-PHL	4	2.7	0.65	Red	23	20	7.1
	PA12-PHL	4	2.7	0.65	Black	23	20	7.1
	PA12-PHL	4	2.7	0.65	Green	23	20	7.1
	PA12-PHL	4	2.7	0.65	Yellow	23	20	7.1
	PA12-PHL	4	2.7	0.65	Grey	23	20	7.1
	PA12-PHL	4.3	3	0.65	Natural	23	20	7.7
	PA12-PHL	4.3	3	0.65	Blue	23	20	7.7
	PA12-PHL	4.3	3	0.65	Red	23	20	7.7
	PA12-PHL	4.3	3	0.65	Black	23	20	7.7
	PA12-PHL	4.3	3	0.65	Green	23	20	7.7
	PA12-PHL	4.3	3	0.65	Yellow	23	20	7.7
	PA12-PHL	4.3	3	0.65	Grey	23	20	7.7

Plastic hoses

Polyamide PA12-PHL tubes

Product No.	Type	Nominal dimensions		Wall thick- ness mm	Colour	Op. pressure 20 °C bar	Min. bending radius mm	Weight g/m
		AD mm	ID mm					
	PA12-PHL	5	3	1	Natural	34	25	12.9
	PA12-PHL	5	3	1	Blue	34	25	12.9
	PA12-PHL	5	3	1	Red	34	25	12.9
	PA12-PHL	5	3	1	Black	34	25	12.9
	PA12-PHL	5	3	1	Green	34	25	12.9
	PA12-PHL	5	3	1	Yellow	34	25	12.9
	PA12-PHL	5	3	1	Grey	34	25	12.9
	PA12-PHL	6	3	1.5	Natural	44	30	21.8
	PA12-PHL	6	3	1.5	Blue	44	30	21.8
	PA12-PHL	6	3	1.5	Red	44	30	21.8
	PA12-PHL	6	3	1.5	Black	44	30	21.8
	PA12-PHL	6	3	1.5	Green	44	30	21.8
	PA12-PHL	6	3	1.5	Yellow	44	30	21.8
	PA12-PHL	6	3	1.5	Grey	44	30	21.8
	PA12-PHL	6	4	1	Natural	27	30	16.2
	PA12-PHL	6	4	1	Blue	27	30	16.2
	PA12-PHL	6	4	1	Red	27	30	16.2
	PA12-PHL	6	4	1	Black	27	30	16.2
	PA12-PHL	6	4	1	Green	27	30	16.2
	PA12-PHL	6	4	1	Yellow	27	30	16.2
	PA12-PHL	6	4	1	Grey	27	30	16.2
	PA12-PHL	8	5	1.5	Natural	31	40	31.5
	PA12-PHL	8	5	1.5	Blue	31	40	31.5
	PA12-PHL	8	5	1.5	Red	31	40	31.5
	PA12-PHL	8	5	1.5	Black	31	40	31.5
	PA12-PHL	8	5	1.5	Green	31	40	31.5
	PA12-PHL	8	5	1.5	Yellow	31	40	31.5
	PA12-PHL	8	5	1.5	Grey	31	40	31.5



Polyamide PA12-PHL tubes

Product No.	Type	Nominal dimensions		Wall thickness mm	Colour	Op. pressure 20 °C bar	Min. bending radius mm	Weight g/m
		AD mm	ID mm					
	PA12-PHL	8	6	1	Natural	19	40	22.7
	PA12-PHL	8	6	1	Blue	19	40	22.7
	PA12-PHL	8	6	1	Red	19	40	22.7
	PA12-PHL	8	6	1	Black	19	40	22.7
	PA12-PHL	8	6	1	Green	19	40	22.7
	PA12-PHL	8	6	1	Yellow	19	40	22.7
	PA12-PHL	8	6	1	Grey	19	40	22.7
	PA12-PHL	9	6	1.5	Natural	27	45	36.1
	PA12-PHL	9	6	1.5	Blue	27	45	36.1
	PA12-PHL	9	6	1.5	Red	27	45	36.1
	PA12-PHL	9	6	1.5	Black	27	45	36.1
	PA12-PHL	9	6	1.5	Green	27	45	36.1
	PA12-PHL	9	6	1.5	Yellow	27	45	36.1
	PA12-PHL	9	6	1.5	Grey	27	45	36.1
	PA12-PHL	9	7	1	Natural	16	45	26.0
	PA12-PHL	9	7	1	Blue	16	45	26.0
	PA12-PHL	9	7	1	Red	16	45	26.0
	PA12-PHL	9	7	1	Black	16	45	26.0
	PA12-PHL	9	7	1	Green	16	45	26.0
	PA12-PHL	9	7	1	Yellow	16	45	26.0
	PA12-PHL	9	7	1	Grey	16	45	26.0
	PA12-PHL	10	6	2	Natural	33	50	51.8
	PA12-PHL	10	6	2	Blue	33	50	51.8
	PA12-PHL	10	6	2	Red	33	50	51.8
	PA12-PHL	10	6	2	Black	33	50	51.8
	PA12-PHL	10	6	2	Green	33	50	51.8
	PA12-PHL	10	6	2	Yellow	33	50	51.8
	PA12-PHL	10	6	2	Grey	33	50	51.8

Plastic hoses

Polyamide PA12-PHL tubes

Product No.	Type	Nominal dimensions		Wall thick- ness mm	Colour	Op. pressure 20 °C bar	Min. bending radius mm	Weight g/m
		AD mm	ID mm					
	PA12-PHL	10	7	1.5	Natural	23	50	41.3
	PA12-PHL	10	7	1.5	Blue	23	50	41.3
	PA12-PHL	10	7	1.5	Red	23	50	41.3
	PA12-PHL	10	7	1.5	Black	23	50	41.3
	PA12-PHL	10	7	1.5	Green	23	50	41.3
	PA12-PHL	10	7	1.5	Yellow	23	50	41.3
	PA12-PHL	10	7	1.5	Grey	23	50	41.3
	PA12-PHL	10	7.5	1.25	Natural	19	60	35.4
	PA12-PHL	10	7.5	1.25	Blue	19	60	35.4
	PA12-PHL	10	7.5	1.25	Red	19	60	35.4
	PA12-PHL	10	7.5	1.25	Black	19	60	35.4
	PA12-PHL	10	7.5	1.25	Green	19	60	35.4
	PA12-PHL	10	7.5	1.25	Yellow	19	60	35.4
	PA12-PHL	10	7.5	1.25	Grey	19	60	35.4
	PA12-PHL	10	8	1	Natural	15	60	29.1
	PA12-PHL	10	8	1	Blue	15	60	29.1
	PA12-PHL	10	8	1	Red	15	60	29.1
	PA12-PHL	10	8	1	Black	15	60	29.1
	PA12-PHL	10	8	1	Green	15	60	29.1
	PA12-PHL	10	8	1	Yellow	15	60	29.1
	PA12-PHL	10	8	1	Grey	15	60	29.1
	PA12-PHL	11.5	9	1.25	Natural	17	60	41.5
	PA12-PHL	11.5	9	1.25	Blue	17	60	41.5
	PA12-PHL	11.5	9	1.25	Red	17	60	41.5
	PA12-PHL	11.5	9	1.25	Black	17	60	41.5
	PA12-PHL	11.5	9	1.25	Green	17	60	41.5
	PA12-PHL	11.5	9	1.25	Yellow	17	60	41.5
	PA12-PHL	11.5	9	1.25	Grey	17	60	41.5



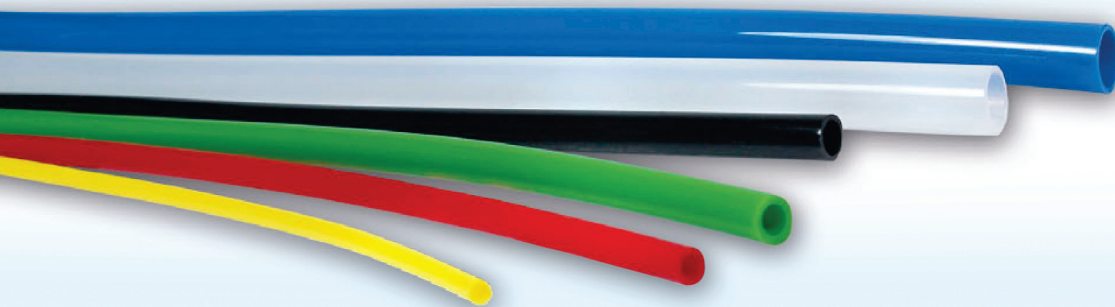
Polyamide PA12-PHL tubes

Product No.	Type	Nominal dimensions		Wall thickness mm	Colour	Op. pressure 20 °C bar	Min. bending radius mm	Weight g/m
		AD mm	ID mm					
	PA12-PHL	12	8	2	Natural	27	60	64.7
	PA12-PHL	12	8	2	Blue	27	60	64.7
	PA12-PHL	12	8	2	Red	27	60	64.7
	PA12-PHL	12	8	2	Black	27	60	64.7
	PA12-PHL	12	8	2	Green	27	60	64.7
	PA12-PHL	12	8	2	Yellow	27	60	64.7
	PA12-PHL	12	8	2	Grey	27	60	64.7
	PA12-PHL	12	9	1.5	Natural	19	60	51.0
	PA12-PHL	12	9	1.5	Blue	19	60	51.0
	PA12-PHL	12	9	1.5	Red	19	60	51.0
	PA12-PHL	12	9	1.5	Black	19	60	51.0
	PA12-PHL	12	9	1.5	Green	19	60	51.0
	PA12-PHL	12	9	1.5	Yellow	19	60	51.0
	PA12-PHL	12	9	1.5	Grey	19	60	51.0
	PA12-PHL	12	10	1	Natural	12	85	35.6
	PA12-PHL	12	10	1	Blue	12	85	35.6
	PA12-PHL	12	10	1	Red	12	85	35.6
	PA12-PHL	12	10	1	Black	12	85	35.6
	PA12-PHL	12	10	1	Green	12	85	35.6
	PA12-PHL	12	10	1	Yellow	12	85	35.6
	PA12-PHL	12	10	1	Grey	12	85	35.6
	PA12-PHL	14	11	1.5	Natural	16	80	60.7
	PA12-PHL	14	11	1.5	Blue	16	80	60.7
	PA12-PHL	14	11	1.5	Red	16	80	60.7
	PA12-PHL	14	11	1.5	Black	16	80	60.7
	PA12-PHL	14	11	1.5	Green	16	80	60.7
	PA12-PHL	14	11	1.5	Yellow	16	80	60.7
	PA12-PHL	14	11	1.5	Grey	16	80	60.7

Plastic hoses

Polyamide PA12-PHL tubes

Product No.	Type	Nominal dimensions		Wall thick- ness mm	Colour	Op. pressure 20 °C bar	Min. bending radius mm	Weight g/m
		AD mm	ID mm					
	PA12-PHL	15	12	1.5	Natural	15	90	65.5
	PA12-PHL	15	12	1.5	Blue	15	90	65.5
	PA12-PHL	15	12	1.5	Red	15	90	65.5
	PA12-PHL	15	12	1.5	Black	15	90	65.5
	PA12-PHL	15	12	1.5	Green	15	90	65.5
	PA12-PHL	15	12	1.5	Yellow	15	90	65.5
	PA12-PHL	15	12	1.5	Grey	15	90	65.5
	PA12-PHL	15	12.5	1.25	Natural	13	90	55.6
	PA12-PHL	15	12.5	1.25	Blue	13	90	55.6
	PA12-PHL	15	12.5	1.25	Red	13	90	55.6
	PA12-PHL	15	12.5	1.25	Black	13	90	55.6
	PA12-PHL	15	12.5	1.25	Green	13	90	55.6
	PA12-PHL	15	12.5	1.25	Yellow	13	90	55.6
	PA12-PHL	15	12.5	1.25	Grey	13	90	55.6
	PA12-PHL	16	13	1.5	Natural	14	90	70.4
	PA12-PHL	16	13	1.5	Blue	14	90	70.4
	PA12-PHL	16	13	1.5	Red	14	90	70.4
	PA12-PHL	16	13	1.5	Black	14	90	70.4
	PA12-PHL	16	13	1.5	Green	14	90	70.4
	PA12-PHL	16	13	1.5	Yellow	14	90	70.4
	PA12-PHL	16	13	1.5	Grey	14	90	70.4
	PA12-PHL	18	14	2	Natural	17	100	103.5
	PA12-PHL	18	14	2	Blue	17	100	103.5
	PA12-PHL	18	14	2	Red	17	100	103.5
	PA12-PHL	18	14	2	Black	17	100	103.5
	PA12-PHL	18	14	2	Green	17	100	103.5
	PA12-PHL	18	14	2	Yellow	17	100	103.5
	PA12-PHL	18	14	2	Grey	17	100	103.5



Polyamide PA12-PHL tubes

Product No.	Type	Nominal dimensions		Wall thick-ness mm	Colour	Op. pressure 20 °C bar	Min. bending radius mm	Weight g/m
		AD mm	ID mm					
	PA12-PHL	20	16	2	Natural	15	120	116.5
	PA12-PHL	20	16	2	Blue	15	120	116.5
	PA12-PHL	20	16	2	Red	15	120	116.5
	PA12-PHL	20	16	2	Black	15	120	116.5
	PA12-PHL	20	16	2	Green	15	120	116.5
	PA12-PHL	20	16	2	Yellow	15	120	116.5
	PA12-PHL	20	16	2	Grey	15	120	116.5
	PA12-PHL	22	18	2	Natural	13	150	129.4
	PA12-PHL	22	18	2	Blue	13	150	129.4
	PA12-PHL	22	18	2	Red	13	150	129.4
	PA12-PHL	22	18	2	Black	13	150	129.4
	PA12-PHL	22	18	2	Green	13	150	129.4
	PA12-PHL	22	18	2	Yellow	13	150	129.4
	PA12-PHL	22	18	2	Grey	13	150	129.4



Polyamide PA12-HL tubes

Temperature range

-60 °C to +100 °C

Polyamide tubes with rigid design are especially suitable for requirements with increased pressures. They have a large temperature range and are preferred for compressed air brakes, pneumatic systems, hydraulic systems and fuel lines in accordance with DIN 73378. The material can be recycled in accordance with the EU Directives.

Can be delivered on request

PA hoses are delivered in rolls of 50 m or 100 m fixed lengths or on drums.

Delivery and minimum order quantity on request.

Pressure utilisation degree (reference values) in %

Pressure utilisation	100%	81.00%	61.00%	50.00%	44.00%	39.00%	34.00%	31.00%	28.00%
Temperature	-60 °C to +23 °C	+30 °C	+40 °C	+50 °C	+60 °C	+70 °C	+80 °C	+90 °C	+100 °C

Example: PA-HL tube 8/6 - permissible Op. pressure at 50 °C (38 bar x 50%) = 19 bar permissible.

Colour (abbreviation)

We deliver PA hoses in:

- natural colours (nf)
- blue (bl)
- red (rt)
- black (sw)
- green (gn)
- yellow (ge)
- grey (gr)

Nominal dimensions

- AD = outer diameter
- ID = inner diameter
- (Production dimension)
- Wall thickness

Dimensions / tolerances

AD 2.50 mm to AD 8.00 mm
+/- 0.07 mm

AD 9.00 mm to AD 13.00 mm
+/- 0.10 mm

AD 14.00 mm to AD 22.00 mm
+/- 0.15 mm

Wall thickness

- Up to 1.00 mm +/- 0.10 mm
- Up to 1.25 mm +/- 0.13 mm
- Up to 1.50 mm +/- 0.15 mm
- Up to 2.00 mm +/- 0.20 mm