

# BODO MÖLLER CHEMIE

*Engineer chemistry*



## Araldite® Adhesives Technical Data Overview

Product	Colour	Chemical base	Density in g/ ml	Viscosity	Pot life	Weight mixing ratio A/B	Volume mixing ratio A/B	Cartridge packaging in ml	Cans/ working Packs	Storage stability	tg value	Temperatur stability
Araldite F300	beige	MMA	1,20	20 Pa*s	2min	No mix	No mix		0,8 kg, 6,0 kg	3y. 2-8°C	40 °C (ca.)	80°C
Araldite F305	grey beige	MMA	1,00	4 Pa*s	2min	No mix	No mix		0,8 kg	3y. 2-8°C	35 °C (ca.)	70°C
Araldite F330	beige	MMA	1,00	15-20	10min	No mix	No mix		0,8 kg	3y. 2-8°C	54 °C	85°C
Araldite 2010-1 - AW4819/ XD4444	pale yellow	EP	1,16	80 Pa*s	10min	100/ 100	100/ 100	200		3y. 2-40°C	40 °C	100°C
Araldite 2011 - AW106/ HV953U	pale yellow	EP	1,05	30-45	100min	100/ 80	100/ 100	50, 200, 380	1,0 kg/ 0,8 kg, 2,0 kg WP	6y. 2-40°C	45 °C	90°C
Araldite 2012 - AW2104/ HW2934	pale yellow	EP	1,18	25-65	6min	100/ 100	100/ 100	50, 200	1,0kg/ 1,0 kg, 2,0 kg WP	3y. 2-40°C	40 °C	70°C
Araldite 2013-1 - AV144-2/ HV997-1	grey paste	EP	1,20	thixotropic	90min	100/ 60	100/ 100	50, 200, 380	1,0 kg/ 0,6 kg	3y. 2-40°C	63 °C	70°C
Araldite 2014-2 - AW139-1/ HV5323-1	grey paste	EP	1,60	thixotropic	110min	100/ 50	100/ 50	50, 200, 380	2,0 kg WP	3y. 2-40°C	85 °C	140°C
Araldite 2015-1 - AV5308/ HV5309-2	grey paste	EP	1,40	thixotropic	50min	100/ 100	100/ 100	50, 200, 380	2,0 kg WP	2y. 2-40°C	78 °C	100°C
Araldite 2018 - AY4446/ HV4445	pale opaque	PU	1,13	8 Pa*s	40min	100/ 95	100/ 100	200		2y. 2-40°C	10 °C (ca.)	80°C
Araldite 2020 - XW396/ XW397	transparent	EP	1,10	0,15 Pa*s	45min	100/ 30	100/ 35		0,5 kg WP	4y. 2-40°C	40 °C	60°C
Araldite 2021-1 - F361-1/ Hardener F361-1	pale yellow	MMA	1,00	thixotropic	3min	100/ 100	100/ 100	50, 380		1,5y. 2-8°C	60 °C (ca.)	100°C
Araldite 2022-1 - F362-1/ Hardener F362-1	pale yellow	MMA	1,00	thixotropic	10min	100/ 100	100/ 100	50, 380		1,5y. 2-8°C	60 °C (ca.)	100°C
Araldite 2028-1 - AY8629-1/ HY8628	transparent	PU	1,12	6 Pa*s	6min	100/ 100	100/ 100	50, 200		2y. 2-25°C	13 °C	55°C
Araldite 2029-1 - AW4840-1/ HW4841	dark grey paste	PU	1,32	60 Pa*s	40min	100/ 82	100/ 100	50, 380		2y. 2-40°C	49 °C	80°C
Araldite 2031-1 - AV4076-1/ HV5309-2	black paste	EP	1,30	thixotropic	70min	100/ 120	100/ 100	50, 380		2y. 2-40°C	75 °C	100°C
Araldite 2033 - AW4833/ HW4833	black paste	EP	1,30	thixotropic	120min	100/ 88	100/ 100	200		1y. 2-8°C	69 °C	100°C
Araldite 2047-1 - F347/ K100-1 RED	reddbrown paste	MMA	1,20	thixotropic	10min	100/ 8.8	100/ 10	50, 480		2y. 2-8°C	80 °C	100°C
Araldite 2048-1 - F348/ Hardener F348-1	black paste	MMA	1,20	thixotropic	10min	100/ 11	100/ 10	50, 480		2y. 2-8°C	67 °C	100°C
Araldite 2050	pale yellow	MMA	1,00	thixotropic	2min	100/100	100/100	50, 380		1,5y. 2-8°C	110 °C	120°C
Araldite 2051	pale yellow	MMA	1,00	thixotropic	5min	100/100	100/100	50, 380		1,5y. 2-8°C	110 °C	120°C
Araldite 2052-1 - F252/ K100-1 RED	red paste	MMA	1,00	thixotropic	15min	100/ 12	100/ 10	50, 480		2y. 2-8°C	120 °C	140°C
Araldite AV 138-1/ HV998-1	grey paste	EP	1,70	thixotropic	30min	100/ 40	100/ 40		1,0 kg/ 0,4kg	6y. 2-40°C	85 °C	140°C
Araldite AY103-1/ HY991	pale yellow	EP	1,00	5 Pa*s	300min	100/ 40	100/ 50		1,0 kg/ 0,4kg	6y. 2-40°C	55 °C	90°C
Araldite AY105-1/ HY991	pale brown	EP	1,10	15 Pa*s	45min	100/ 50	100/ 60		1,0 kg/ 0,4kg	6y. 2-40°C	100 °C	120°C
Araldite AW2101/ HW2951	pale grey paste	EP	1,80	thixotropic	6min	100/ 100	100/ 100	50, 200	280ml tube	4y. 2-40°C	48 °C	100°C
Araldite AV4415/ HV4416-1*	dark grey paste	EP	1,60	thixotropic	80min	100/ 50	100/ 50	200		4y. 2-40°C	135 °C	180°C
Araldite AW4858/ HW4858	black paste	EP	1,10	thixotropic	150min	100/ 42	100/ 50	50, 380		5y. 2-40°C	67 °C	90°C
Araldite AW4859/ HW4859*	black paste	EP	1,10	thixotropic	110min	100/ 43	100/ 50	50, 380		3y. 2-40°C	81 °C	140°C

\*Hardening at elevated temperatures necessary

Pa= Packaging

Product	Shore hardness	Elongation at 23°C	E-Modulus at 23°C	Flexural strength (ISO 178) at 23°C	Tensile strength (ISO 527) at 23°C	Roller peel test (ISO 4578) etched Alu.	0°C LSS > 1N/mm <sup>2</sup>	10°C LSS > 1N/mm <sup>2</sup>	15°C LSS > 1N/mm <sup>2</sup>	23°C LSS > 1N/mm <sup>2</sup>	40°C LSS > 1N/mm <sup>2</sup>	60°C LSS > 1N/mm <sup>2</sup>
Araldite F300	D 80	7,2%			26MPa	6N/mm		5 min	4 min	0:03	2 min	
Araldite F305		23%			17MPa	6N/mm		5 min	4 min	0:03	2 min	
Araldite F330	D 80	3,5%			14MPa	7N/mm	1h	40 min	30 min	0:20	9 min	
Araldite 2010-1 - AW4819/ XD4444		4%	1895MPa	45MPa		6N/mm		4 h	2 h	0:30	15 min	5 min
Araldite 2011 - AW106/ HV953U	D 74	9%	1900MPa	60MPa		5N/mm		24 h	12 h	7:00	2 h	30 min
Araldite 2012 - AW2104/ HW2934	D 64	4%	1650MPa	46MPa		5,5N/mm		35 min	25 min	0:20	5 min	2 min
Araldite 2013-1 - AV144-2/ HV997-1		1,8%	1370MPa	22MPa				15 h	12 h	5:00	80 min	25 min
Araldite 2014-2 - AW139-1/ HV5323-1		0,9%	3500MPa	60MPa	30MPa			13 h	15 h	5:00	90 min	20 min
Araldite 2015-1 - AV5308/ HV5309-2		4,2%	1800MPa	43MPa	31MPa			10 h	6 h	4:00	1 h	20 min
Araldite 2018 - AY4446/ HV4445	A 87	45%	16MPa		7MPa	4N/mm		16 h	12 h	4:00	45 min	25 min
Araldite 2020 - XW396/ XW397		4%	2400MPa			0,2N/mm		24 h	20 h	0:16	3 h	90 min
Araldite 2021-1 - F361-1/ Hardener F361-1		10%	1800MPa		42MPa			20 min	13 min	0:09	2 min	
Araldite 2022-1 - F362-1/ Hardener F362-1		5%	1700MPa		45MPa			30 min	17 min	0:12	6 min	
Araldite 2028-1 - AY8629-1/ HY8628		60%	16MPa		11MPa	6,6N/mm		2 h	75 min	0:30	7 min	3 min
Araldite 2029-1 - AW4840-1/ HW4841	D 76	35%	600MPa		20MPa	3N/mm		9 h	15 h	4:00	70 min	25 min
Araldite 2031-1 - AV4076-1/ HV5309-2		12%	1200MPa	37MPa	23MPa	5N/mm		12 h	7 h	3:00	90 min	15 min
Araldite 2033 - AW4833/ HW4833		1,4%	2500MPa		22MPa			14 h	8 h	4:00	85 min	15 min
Araldite 2047-1 - F347/ K100-1 RED		14%	800MPa		14MPa			25 min	20 min	0:15	5 min	
Araldite 2048-1 - F348/ Hardener F348-1	D 48	91%	364MPa		13MPa	5,4N/mm		70 min	50 min	0:35	10 min	
Araldite 2050		20%	1800MPa		43MPa		25min	15 min	11 min	0:08		
Araldite 2051		20%	1800MPa		42MPa		60min	20 min	13 min	0:09		
Araldite 2052-1 - F252/ K100-1 RED		8%	1600MPa		28MPa			40 min	30 min	0:20	10 min	
Araldite AV 138-1/ HV998-1	D 86	0,8%	4200MPa		29MPa			14 h	8 h	4:00	75 min	20 min
Araldite AY103-1/ HY991	D 80		1700MPa		38MPa	1N/mm		16 h	16 h	12:00	2 h	40 min
Araldite AY105-1/ HY991								16 h	12 h	6:00	90 min	30 min
Araldite AW2101/ HW2951						4,5N/mm		12 h	4 h	1:00	20 min	5 min
Araldite AV4415/ HV4416-1*		1,2%	4540MPa		52MPa						80 min	15 min
Araldite AW4858/ HW4858	D 75	7%	1650MPa		61MPa	7N/mm		15 h	12 h	6:00	90 min	25 min
Araldite AW4859/ HW4859*	D 75	4,3%	1500MPa	65MPa	40MPa					4:30	100 min	20 min

Product	Aluminium	Steel 37/11	Stainless steel V4A	Galvanized steel	Copper	Brass	Glas	PC (Polycarbonate)	ABS	PMMA	PVC Hart	PA (Polyamid 6) cond.	EP-GFRP	EP-CRFP	SMC
Araldite F300	23	19	26	4	24	23	4		5	4	7	1	15		4
Araldite F305	23	22	22	2	17	23	7		6	6	9	3	19		4
Araldite F330	33	29	39	2	30	38	7		6	7	11	2	19		5
Araldite 2010-1 - AW4819/ XD4444	19	14	23	18	20	17	2		3	1	2	2	5	13	6
Araldite 2011 - AW106/ HV953U	26	25	22	18	24	24	4		5	3	2	4	12	19	7
Araldite 2012 - AW2104/ HW2934	18	21	27	11	19	21	4		4	3	4	2	9	14	5
Araldite 2013-1 - AV144-2/ HV997-1	20	19	23	18	21	22	2		2	2	5	2	13	19	10
Araldite 2014-2 - AW139-1/ HV5323-1	18	20	23	20	18	19	3		2	2	6	2	8	17	8
Araldite 2015-1 - AV5308/ HV5309-2	20	23	24	18	18	20	4		2	3	4	4	15	22	8
Araldite 2018 - AY4446/ HV4445	7	8	7	10	4	4	6		7	4	4	3	8	8	7
Araldite 2020 - XW396/ XW397	16	17	24	12	16	14	25	5	4			2			8
Araldite 2021-1 - F361-1/ Hardener F361-1	25	16	23	12				8	6	7	9	2	12	20	5
Araldite 2022-1 - F362-1/ Hardener F362-1	25	25	25	18	16	20		8	6	7	9	2	18	23	6
Araldite 2028-1 - AY8629-1/ HY8628	15	17	10	14	9	11	7	4	5	3	5	3	13	16	5
Araldite 2029-1 - AW4840-1/ HW4841	24	24	23	19	20	17		6	6	4	5	4	25	27	6
Araldite 2031-1 - AV4076-1/ HV5309-2	22	24	25	21	22	24		5	2	3	3	2	20	20	6
Araldite 2033 - AW4833/ HW4833	16	19	18	16	17	17		3	4	2	6	3	9		8
Araldite 2047-1 - F347/ K100-1 RED	19	18	18	16	17	19		5	6	7	7	3	14	16	8
Araldite 2048-1 - F348/ Hardener F348-1	24	18	24	14	20	23		6	6	7	10	3	17	23	10
Araldite 2050	31	26	31	20	11	17		9	6	7	9	2	15	16	6
Araldite 2051	31	26	31	20	11	17		9	6	7	9	2	15	16	6
Araldite 2052-1 - F252/ K100-1 RED	25	21	25	4	24	25		4	3	5	7	3	14	17	3
Araldite AV 138-1/ HV998-1	15	18	19	18	15	17		2		2	4		12	15	8
Araldite AY103-1/ HY991	15	18	22	7	14	15		2	3		4	3	14		7
Araldite AY105-1/ HY991	14	16	17	12	12	12		3	4		2				6
Araldite AW2101/ HW2951	20	25	30	19	24	23									
Araldite AV4415/ HV4416-1*	22	20	21	14	16	15		4			4		19		7
Araldite AW4858/ HW4858	38	26	26	20	18	28		6	6	4	5	3	35	41	9
Araldite AW4859/ HW4859*	33	27	27	20	18	27		6	5	3	6	2	36	35	7
Linearic expansion coefficient 1/Kx10 <sup>-6</sup>	23,1	11,1	10	11	16,5	18,4	8,5	70	60-110	70-85	60-70	60-80	5-20	5-20	5-20
	Aluminium	Steel 37/11	Stainless Steel	Galvanized Steel	Copper	Brass	Glas	PC (Polycarbonate)	ABS	PMMA	PVC Hart	PA (Polyamid 6) cond.	EP-GFRP	EP-CRFP	SMC
Linearic expansion coefficient 1/Kx10 <sup>-6</sup>	23,1	11,1	10	11	16,5	18,4	8,5	70	80	75	65	70	15	15	15

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