



thermostat **waxes**



dilavest™

controlled expansion waxes
for **thermostats**

Experience performance from
our **consistent expansion waxes**
cycle after cycle

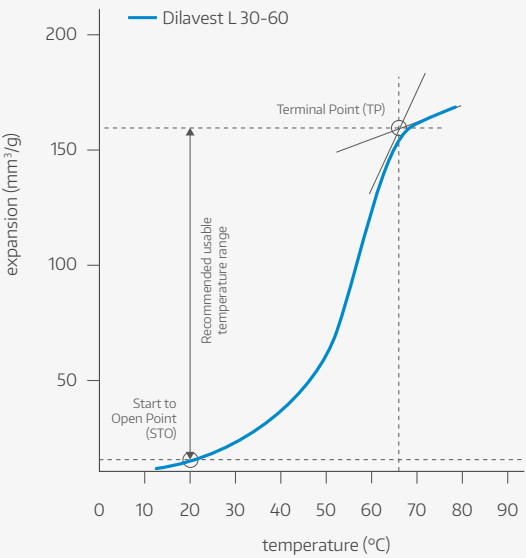
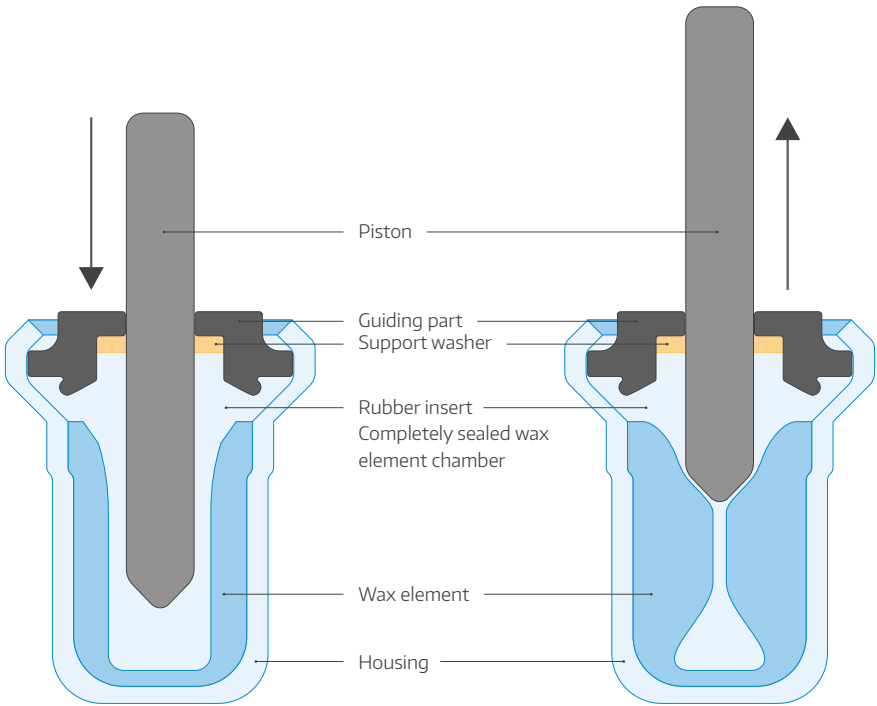
—○ waxes adhesives coatings

 **paramelt**
experience. performance.

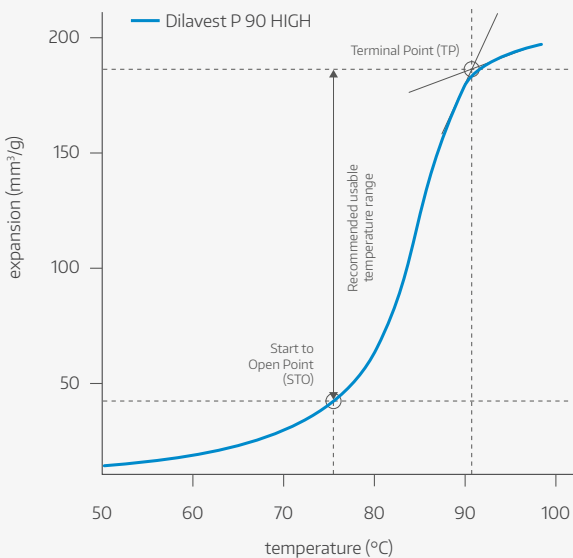
Dilavest™ is the product name of Paramelt thermostat waxes or expansion waxes. These waxes are used in control valves which operate on the piston stroke principle (see illustrations). Valves of that kind are mainly used in the automotive and aerospace industry (Dilavest™ P-grades) and for the heating & ventilation sector, e.g. in radiator valves (Dilavest™ L-grades).

Advantages of Dilavest™ expansion wax technology

- small dimensions
- high driving forces
- large adjusting distance
- great control accuracy
- insensitive to mechanical vibrations
- maintenance-free
- long service life



Dilavest L 30-60: A linear-grade expansion wax that expands over a useful temperature range of 30°C to 60°C. Within this range, it continuously adjusts applications like hot water valves by varying the valve opening as temperatures change.



Paramelt classifies the control point expansion waxes – here Dilavest P 90 HIGH – on the basis of the so-called Terminal Point (TP). At this temperature the opening operation has been completed.

The graph is showing the expansion of the wax from Start to Open (STO) to the Terminal Point (TP) in mm³/g between two temperatures. For Dilavest P 90 HIGH it is 140 mm³/g between 75°C and 90°C.

	Product	DSC Melting Peak °C ONTW-WI-196	Start to open (STO) °C ONTW-WI-209	Terminal Point (TP) °C ONTW-WI-209	Wax Expansion mm³/g ONTW-WI-209
n-Alkanes Dilavest C STO > 4,9mm³/g/°C TP < 4,9mm³/g/°C	Dilavest C 13	-5	-15	2 - 4	150 - 165
	Dilavest C 14	6	8	14 - 16	165 - 190
	Dilavest C 15	10	0	18 - 20	168 - 182
	Dilavest C 16	18	19 - 21	27 - 29	182 - 196
	Dilavest C 17	22	14 - 16	30 - 32	168 - 182
	Dilavest C 18	28	28 - 30	36 - 38	186 - 200
	Dilavest C 19	32	24 - 26	39 - 41	175 - 189
	Dilavest C 20	36	34 - 36	44 - 46	180 - 194
	Dilavest C 22	44	42.5 - 44.5	51.5 - 53.5	186 - 200

	Product	Congealing Point °C ASTM D 938	Penetration at 25°C dmm ASTM D 1321	Start to open (STO) °C ONTW-WI-209	Terminal Point (TP) °C ONTW-WI-209	Wax Expansion mm³/g ONTW-WI-209
Linear grades Dilavest L STO > 2mm³/g/°C TP < 2mm³/g/°C	Dilavest L 0-30 HIGH	29 - 36	paste like	-2 - +6	32.5 - 36.5	135 - 145
	Dilavest L 0-30 LOW	22 - 38	paste like	-6 - +5	33 - 38	122 - 132
	Dilavest L 30-60	58 - 62	40 - 55	31 - 35	65 - 69	135 - 145
	Dilavest L 49	40 - 48	hard paste	12 - 18	51 - 55	157 - 167
	Dilavest L 60-125	102 - 106	1 - 6	78 - 86	115 - 119	183 - 195
Control Point Grades Dilavest P STO > 2mm³/g/°C TP < 2mm³/g/°C	Dilavest P 45*	35 - 45	80 - 140	12 - 15.5	45 - 48	152 - 168
	Dilavest P 47*	40 - 44	45 - 60	18 - 21	49 - 52	155 - 170
	Dilavest P 51*	42 - 48	35 - 70	19 - 22	52.5 - 55.5	160 - 175
	Dilavest P 60*	52 - 58	18 - 30	27.5 - 32	61 - 65	162 - 176
	Dilavest P 66*	58 - 64	12 - 18	37 - 41	66.5 - 70.5	160 - 175
	Dilavest P 66 SH*	59 - 63	8 - 16	42 - 44.5	66.5 - 70.5	172 - 180
Control Point Grades Dilavest P STO > 4,9mm³/g/°C TP < 4,9mm³/g/°C	Dilavest P 72	65 - 71	16 - 22	56.5 - 59.5	71 - 73.5	112 - 122
	Dilavest P 77 SH	69 - 78	8 - 16	62 - 65.5	77.5 - 80	160 - 170
	Dilavest P 80 HIGH	71 - 77	11 - 17	67 - 70	80.5 - 83	133 - 147
	Dilavest P 80 LOW	73 - 79	7 - 13	65 - 68	81.5 - 84	130 - 144
	Dilavest P 84	76 - 80	6 - 10	70 - 73	83 - 85.5	140 - 156
	Dilavest P 86	78 - 82	3 - 8	71 - 74	84.8 - 87.5	142 - 158
	Dilavest P 87	78 - 83	6 - 12	73.5 - 77	86.5 - 89	149 - 165
	Dilavest P 88	81 - 85	3 - 8	74 - 77	88.5 - 91	138 - 154
	Dilavest P 88 SH	81 - 85	3 - 8	78 - 80.5	89 - 91.5	150 - 170
	Dilavest P 90 HIGH	82 - 86	2 - 7	75 - 78	90 - 92.5	144 - 162
	Dilavest P 92	84 - 88	2 - 7	78.5 - 82	92 - 94.5	149 - 165
	Dilavest P 94	86 - 90	0 - 4	79 - 82	93.5 - 96	146 - 162
	Dilavest P 94 SH	86 - 90	2 - 7	82 - 85	94.5 - 97	156 - 172
	Dilavest P 97 HIGH	88 - 92	2 - 6	82.5 - 86	95.5 - 98.5	147 - 163
	Dilavest P 100	92 - 96	1 - 5	87.5 - 90.5	100.5 - 103	161 - 175
	Dilavest P 101	93 - 97	0 - 4	86.5 - 89.5	101 - 103.5	152 - 168
	Dilavest P 103 SH	95 - 99	0 - 4	91.5 - 95	104 - 106.5	160 - 175
	Dilavest P 105 HIGH	96 - 100	1 - 5	91.5 - 96	104.5 - 108	157 - 173
	Dilavest P 110	100 - 104	0 - 4	96 - 99	109 - 111.5	158 - 172
	Dilavest P 112	100 - 104	0 - 4	96 - 99	109.5 - 112.5	158 - 172
	Dilavest P 112 LOW	102 - 106	4 - 10	99 - 102.5	112 - 115	126 - 142
	Dilavest P 112 SH	100 - 104	0 - 4	99 - 101	109.5 - 111.5	156 - 170
	Dilavest P 115	103 - 107	0 - 4	100.5 - 104	113.5 - 116.5	155 - 173
	Dilavest P 117	105 - 109	0 - 4	102 - 106	118 - 121	160 - 175
	Dilavest P 119	105 - 110	0 - 4	102.5 - 106	120 - 123	164 - 178
	Dilavest P 122	108 - 112	0 - 4	106 - 109	123 - 126	165 - 179

* Please note that these products have a significant pre-expansion. Contact our team for more information.



We are Paramelt

Founded in 1898, Paramelt has over 125 years of experience and today is a global producer of wax blends, adhesives and specialty dispersions. Operating from production sites in the Netherlands, United Kingdom, the USA and China, we work together in a team of about 500 employees around the world. In most of our core applications Paramelt is the acknowledged market leader.

Dilavest™ is a registered trademark of Paramelt Information and details given in this document, particularly any recommendations for application and use of our products are based on careful laboratory tests and prevailing practical experience and are believed to be correct at time of publication. For more information: paramelt.com/disclaimer

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