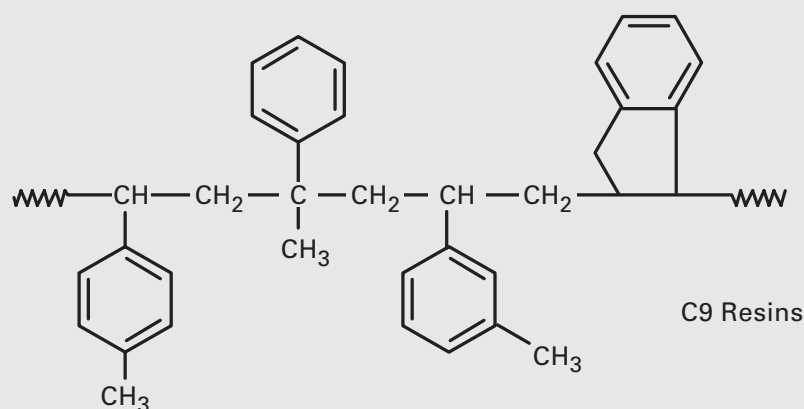


Tailormade Hydrocarbon Resins

Novares resins are thermoplastic hydrocarbon resins based on petrochemical and carbon feedstock. With innovative product solutions and logistical concepts and a high level of flexibility we can adapt to a large range of individual customer needs. Our clients can choose from a broad selection of different resins with a wide range of viscosities and softening points. We can provide these products tailor-made to special requirements.

- solid resins in pastilles supplied in paper bags and big bags
- molten resin in heatable tankcontainer
- liquid resins in drums, IBCs or by tanktruck
- solid resins dissolved in solvents

Our production processes, application technology and marketing system are of course certified according to DIN EN ISO 9001, EN ISO 50001, DIN EN ISO 14001 and BS OHSAS 18001:2007 quality and environmental standards.



NOVARES	Softening Point (Ring & Ball) [°C] ASTM D3461	Typical Colour (Yellowness Index) 50% in Toluene ISO 6271	Colour (Yellowness Index) 50% in Toluene ISO 6271	
<i>pure</i> 1100	95 - 105	0.5	max. 1.5	Fully hydrogenated C9-hydrocarbon resins
<i>pure</i> 1120	115 - 125	0.5	max. 1.5	
<i>pure</i> 2100	95 - 105	1	max. 2.0	Fully hydrogenated copolymer-hydrocarbon resins
<i>pure</i> 2120	115 - 125	1	max. 2.0	

NOVARES	Softening Point (Ring & Ball) [°C]	OH Content [%]	Typical Colour (Gardner) 50% in Toluene ISO 4630	Colour (Gardner) 50% in Toluene ISO 4630		
T 100	95 - 105	–	8	max. 11	C9-hydrocarbon resins for a wide range of applications.	
T 140	135 - 145	–	8	max. 11		
TT 30	20 - 30	–	8	max. 16		
TT 90	85 - 95	–	8	max. 9		
TT 100	95 - 105	–	7	max. 9		
TT 120	115 - 125	–	7	max. 9		
TT 120 H	115 - 125	–	5	max. 6		
TT 140	135 - 145	–	7	max. 9		
TD 90	85 - 95	–	8	max. 14		
TD 100	95 - 105	–	7	max. 14		
TD 120	115 - 125	–	7	max. 10		
TA 100	95 - 105	app. 1.0	7	max. 9		Phenol-modified C9-hydrocarbon resins.
TA 120	115 - 125	app. 1.0	7	max. 9		
TNA 120	115 - 125	app. 1.2	7	max. 10		
TL 10	liquid	–	7*	max. 12*	Hydrocarbon resins based on selected constituents of petroleum-derived C9-fraction.	
TL 90	85 - 95	–	7	max. 9		
TL 100	95 - 105	–	7	max. 9		
TM 90 S	85 - 100	–	1	max. 2	Hydrocarbon resins based on pure monomers with excellent UV- and thermal stability.	
TM 85 AS	82 - 88	–	<1	max. 1		
TM 70 S	70 - 75	–	1	max. 2		
TM 20 AS	liquid	–	1*	max. 4*		
TN 15	liquid	–	9*	max. 15*	Hydrocarbon resins based on selected constituents of petroleum-derived C9-fraction. Distinguished by excellent EVA-compatibility and superior solubility in a wide range of solvents.	
TN 100	95 - 105	–	7	max. 10		
TN 110	105 - 110	–	8	max. 10		
TN 120	115 - 123	–	7	max. 8		
TN 140	135 - 145	–	7	max. 10		
TN 150	145 - 150	–	7	max. 8		
TN 160	155 - 160	–	8	max. 10		
TN 160 T	155 - 165	–	7	max. 8		
TN 170	165 - 175	–	6	max. 10		
TK 100	100 - 105	–	7	max. 9		Aliphatic modified C9-hydrocarbon resins. Improved compatibility with waxes, EVA and block copolymers. Improved solubility in non- aromatic solvents and mineral oils.
TK 100 H	100 - 105	–	6	max. 6		
TK 120	115 - 125	–	8	max. 10		
TP 100	95 - 105	–	6	max. 8		
TS 140	135 - 145	–	6	max. 8	Hydrocarbon resins based on selected constituents of petroleum C9-fraction; excellent EVA, wax and mineral oil compatibility.	
TV 100	95 - 105	–	7	max. 9		
TV 120	115 - 125	–	7	max. 10		
T 140 M	135 - 145	–	8	max. 11	Maleic anhydride modified hydrocarbon resins.	
TC 145 M	140 - 155	–	12	max. 14		
TCS 5	liquid	–	9	max. 12		

* undiluted H: Light colour M: Maleic anhydride modified

NOVARES	Softening Point (Ring & Ball) [°C]	OH Content [%]	Typical Colour (Gardner) 50% in Toluene ISO 4630	Colour (Gardner) 50% in Toluene ISO 4630	
TR 100	95 - 105	–	12	max. 15	Copolymer-hydrocarbon resins for a wide range of applications.
TC 85	85 - 95	–	11	max. 13	
TC 100	95 - 105	–	12	max. 15	
TC 115	110 - 120	–	12	max. 13	
TC 130	125 - 130	–	12	max. 14	
TC 145	140 - 155	–	13	max. 15	
TC 160	155 - 165	–	14	max. 15	
TCT 100	97 - 110	–	13	max. 18	

NOVARES	Softening Point (Ring & Ball) [°C]	Density 20 °C [g/ml] DIN 51757	OH Content [%]	Typical Colour (Gardner) ISO 4630	Colour (Gardner) 50% in Toluene	
C 10	liquid	1.07 - 1.09		9*	max. 12*	Indene-coumarone resins.
C 30	20 - 30	1.06 - 1.10		8	max. 11	
C 80	80 - 85	–		7	max. 8	
C 90	88 - 95	–		7	max. 10	
C 100	98 - 105	–		7	max. 10	
C 120	115 - 125	–		7	max. 9	
C 140	135 - 145	–		7	max. 10	
C 160	155 - 164	–		6	max. 9	
CA 80	78 - 85	–	app. 3.5	7	max. 9	Phenol-modified.
CA 100	95 - 105	–	2.2 - 2.7	6	max. 10	

* undiluted

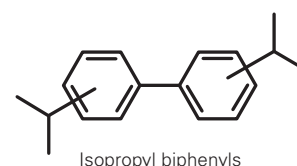
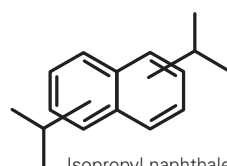
NOVARES	Viscosity 25 °C [mPas] DIN 51659-2	Density 20 °C [g/ml] DIN 51757	OH Content [%]	Typical Colour (Gardner) undiluted ISO 4630	Colour (Gardner) undiluted	
W	50 - 150	1.00 - 1.06	0.96 - 1.06	1	max. 4	Water miscible liquid modifiers for waterborne formulations. Resin emulsion with 60% solid content.
WA 2	450 - 550	1.01 - 1.05	1.9 - 2.5	2	max. 6	
WA 7	1200 - 2300	1.01 - 1.09	6.4 - 7.2	4	max. 6	
WE 30	700 - 1500	1.02 - 1.10	–	–	–	

A = Phenol modified E = Emulsion W = Water miscible

NOVARES	Viscosity 25 °C [mPas] DIN 51659-2	Density 20 °C [g/ml] DIN 51757	OH Content [%]	Typical Colour (Gardner) undiluted ISO 4630	Colour (Gardner) undiluted	
L 100	50 - 150	1.00 - 1.06	–	1	max. 4	Modifiers for reactive resin systems (epoxy, polyurethanes, polysulfides) to improve hydrophobicity, flexibility.
L 800	800 - 1000	1.06 - 1.10	–	9	max. 14	
LA 300	300 - 400	1.01 - 1.05	1.7 - 2.2	2	max. 6	
LA 700	700 - 800	1.01 - 1.05	2.3 - 2.8	6	max. 6	
LA 1200	1200 - 1500	1.05 - 1.09	2.4 - 2.7	5	max. 14	
LA 100 P	75 - 125	1.00	1.5	1	max. 2	
LA 300 P	250 - 500	1.02	1.7	1	max. 2	
LA 700 P	900 - 1300	1.02	1.9	1	max. 2	
LA 2000 P	2000 - 2700	1.03	2.9	1	max. 2	
LS 500	400 - 1400	1.05 - 1.09	7.0 - 7.6	4	max. 6	
LC 15	100 - 180	1.01 - 1.05	1.4 - 1.6	2	max. 4	Low viscosity modifiers with wide polarity range for reactive systems (epoxy, polyurethanes, polysulfides and acrylates).
LC 20	130 - 200	1.01 - 1.05	1.8 - 2.2	2	max. 4	
LC 25	150 - 250	1.01 - 1.05	2.3 - 2.7	3	max. 4	
LC 40	350 - 450	1.01 - 1.05	3.8 - 4.2	3	max. 4	
LC 65	650 - 800	1.01 - 1.05	6.2 - 6.6	3	max. 5	
H 1100	800 - 1200	1.02 - 1.08	–	9	max. 17	Formulations based on hydro-carbon resins as PAH-free alternatives for tar oil and pitch. Improve chemical resistance and corrosion protection in systems.
H 2500	2500 - 3000	1.04 - 1.08	0.3 - 1.0	8	max. 15	
HA 30	25 - 35	0.98 - 1.03	0.9 - 1.3	3	max. 14	
HA 1100	800 - 1200	1.02 - 1.08	1.4 - 1.9	8	max. 17	
HA 2100	2200 - 2800	1.02 - 1.08	1.6 - 2.0	8	max. 17	

P: Premium

Ruetasolv products are non-reactive modifiers based on naphthalene or biphenyl and are suitable for various applications when high boiling points are needed. We provide Ruetasolv products as mixtures and addition of additives as e.g. mineral oil is possible.



RUETASOLV	Viscosity 20°C [mm²/s] DIN 51562	Density 20°C [g/ml] DIN 51575	Boiling Range [°C] DIN 51761	Content %
Ruetasolv DI	12.0 - 14.5	0.9450 - 0.9650	290 - 300	> 98 Di-IsopropylNaphthalene
Ruetasolv BP D	20 - 40	0.9450 - 0.9750	304 - 337	> 75 Di-Isopropylbiphenyl
Ruetasolv BP M	8.2 - 9.5	0.9750 - 0.9850	293 - 315	> 90 Isopropylbiphenyl

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This information is based on present level of knowledge. Since the individual application conditions are beyond our control, no warranty or product liability can be given.