



Delrin® 100ST NC010

ACETAL RESIN

Delrin®聚甲醛树脂的共性包括优异的机械性能和物理性能比如高机械强度和刚性，优异的耐疲劳性能和抗冲击性，同时具有突出的耐潮湿、汽油、润滑剂、溶剂和多种其他中性化学品。Delrin®聚甲醛树脂还具有卓越的尺寸稳定性和良好的电绝缘性能，具有天然弹性、自润滑，可制成多种颜色和特殊规格。

Delrin®聚甲醛树脂通常应用于具有严苛要求的汽车、家用电器、运动、工业工程、电子和消费品工业。

Delrin® 100ST NC010是一种超韧 高粘度均聚甲醛

总说明

树脂鉴别	POM-HI	ISO 1043
制品标识码	>POM-HI<	ISO 11469

流变性能

熔体体积流动速度, MVR	1.7 cm ³ /10min	ISO 1133
熔体质量流动速率	2 g/10min	ISO 1133
温度	190 °C	ISO 1133
负荷	2.16 kg	ISO 1133
熔体质量流率, 温度	190 °C	ISO 1133
熔体质量流率, 载荷	2.16 kg	ISO 1133
模塑收缩率, 平行	0.8 %	ISO 294-4, 2577
模塑收缩率, 垂直	1.1 %	ISO 294-4, 2577

机械性能

拉伸模量	1400 MPa	ISO 527-1/-2
屈服应力	41 MPa	ISO 527-1/-2
屈服伸长率	30 %	ISO 527-1/-2
名义断裂伸长率	>50 %	ISO 527-1/-2
弯曲模量	1100 MPa	ISO 178
弯曲应力 (3.5%应变)	34 MPa	ISO 178
拉伸蠕变模量, 1h	1100 MPa	ISO 899-1
拉伸蠕变模量, 1000h	550 MPa	ISO 899-1
简支梁无缺口冲击强度, +23°C	N kJ/m ²	ISO 179/1eU
简支梁无缺口冲击强度, -30°C	N kJ/m ²	ISO 179/1eU
简支梁缺口冲击强度, +23°C	90 kJ/m ²	ISO 179/1eA
简支梁缺口冲击强度, -30°C	18 kJ/m ²	ISO 179/1eA
悬臂梁缺口冲击强度, 23°C	90 kJ/m ²	ISO 180/1A
悬臂梁缺口冲击强度, -40°C	20 kJ/m ²	ISO 180/1A
洛氏硬度	58 -	ISO 2039-2
洛氏硬度, Rockwell	105 -	ISO 2039-2
Poisson's ratio	0.43 -	
肖氏硬度D, 15s	70 -	ISO 48-4



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热性能

熔融温度, 10°C/min	178 °C	ISO 11357-1/-3
玻璃化转变温度, 10°C/min	-35 °C	ISO 11357-1/-2
热变形温度, 1.80 MPa	60 °C	ISO 75-1/-2
热变形温度, 0.45 MPa	100 °C	ISO 75-1/-2
维卡软化温度, 50°C/h 10N	170 °C	ISO 306
线膨胀系数, 平行	130 E-6/K	ISO 11359-1/-2
线膨胀系数, 垂直	140 E-6/K	ISO 11359-1/-2
有效导热率 ^a	6.0E-8 m ² /s	
相对温度指数, 电气性能, 1.5mm	105 °C	UL 746B
相对温度指数, 电气性能, 3mm	105 °C	UL 746B
相对温度指数, 冲击, 1.5mm	85 °C	UL 746B
相对温度指数, 冲击, 3mm	85 °C	UL 746B
相对温度指数, 强度, 1.5mm	85 °C	UL 746B
相对温度指数, 强度, 3mm	85 °C	UL 746B

燃烧性能

1.5mm名义厚度时的燃烧性	HB class	IEC 60695-11-10
测试用试样的厚度	1.5 mm	IEC 60695-11-10
UL注册	yes -	UL 94
灼热丝燃烧指数, 1mm	550 °C	IEC 60695-2-12
灼热丝燃烧指数, 2mm	550 °C	IEC 60695-2-12
灼热丝燃烧指数, 3mm	550 °C	IEC 60695-2-12
FMVSS Class	B -	ISO 3795 (FMVSS 302)
燃烧速率, 厚度: 1毫米	41 mm/min	ISO 3795 (FMVSS 302)

电性能

相对介电常数., 100Hz	4.4 -	IEC 62631-2-1
相对介电常数., 1MHz	3.8 -	IEC 62631-2-1
体积电阻率	1E12 Ohm.m	IEC 62631-3-1
表面电阻率	1E14 Ohm	IEC 62631-3-2
相对漏电起痕指数	600 -	IEC 60112

其它性能

吸湿性, 2mm	0.35 %	类似ISO 62
吸水性, 2mm	0.9 %	类似ISO 62
密度	1340 kg/m ³	ISO 1183
熔体密度	1140 kg/m ³	

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VDA性能

甲醛散发

<8^[1] mg/kg

VDA 275

[1]: <5

注塑

建议干燥

是

干燥温度

80 °C

干燥时间, 除湿干燥机

4 - 8 h

加工前水分含量

≤ 0.05 %

最优熔体温度

205 °C

注塑 熔体温度

200 °C

注塑 熔体温度

210 °C

螺杆最大切线速度

0.2 m/s

最优模具温度

50 °C

模具温度

40 °C

模具温度

60 °C

保压范围

60 - 80 MPa

保压时间

7.5 s/mm

回火时间, 可选

30 min/mm

回火温度

160 °C

薄膜挤出成型

干燥温度

80 °C

干燥时间, 除湿干燥机

4 - 8 h

加工前水分含量

≤ 0.05 %

最优熔体温度

200 °C

熔体温度范围

195 - 205 °C

典型数据

添加剂

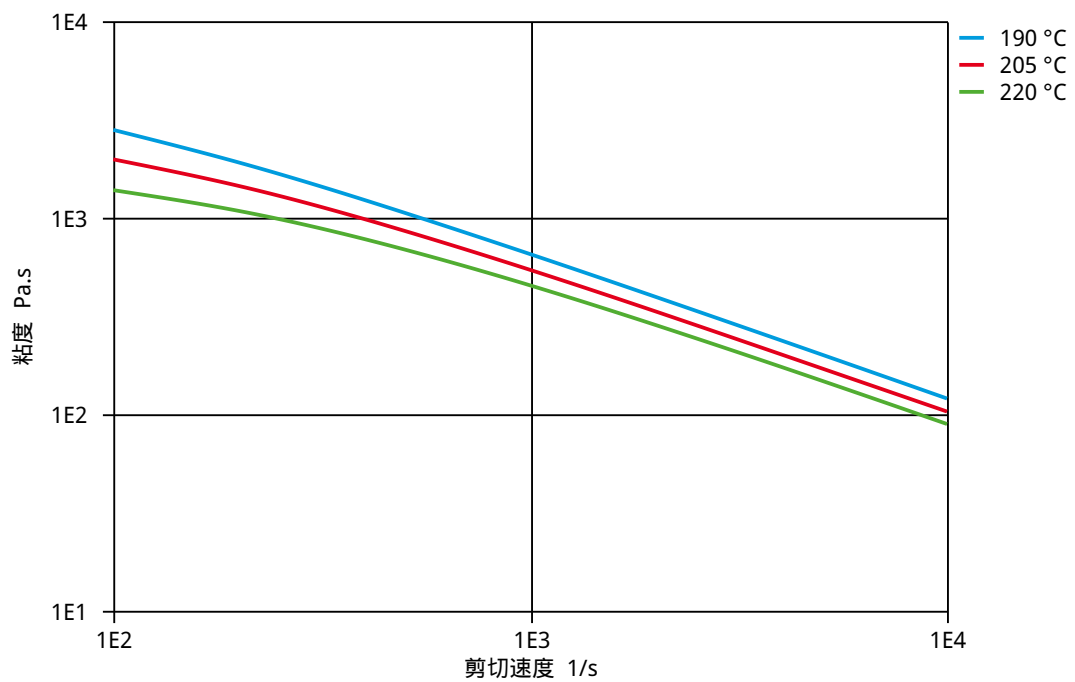
脱模助剂



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粘度 - 剪切速度

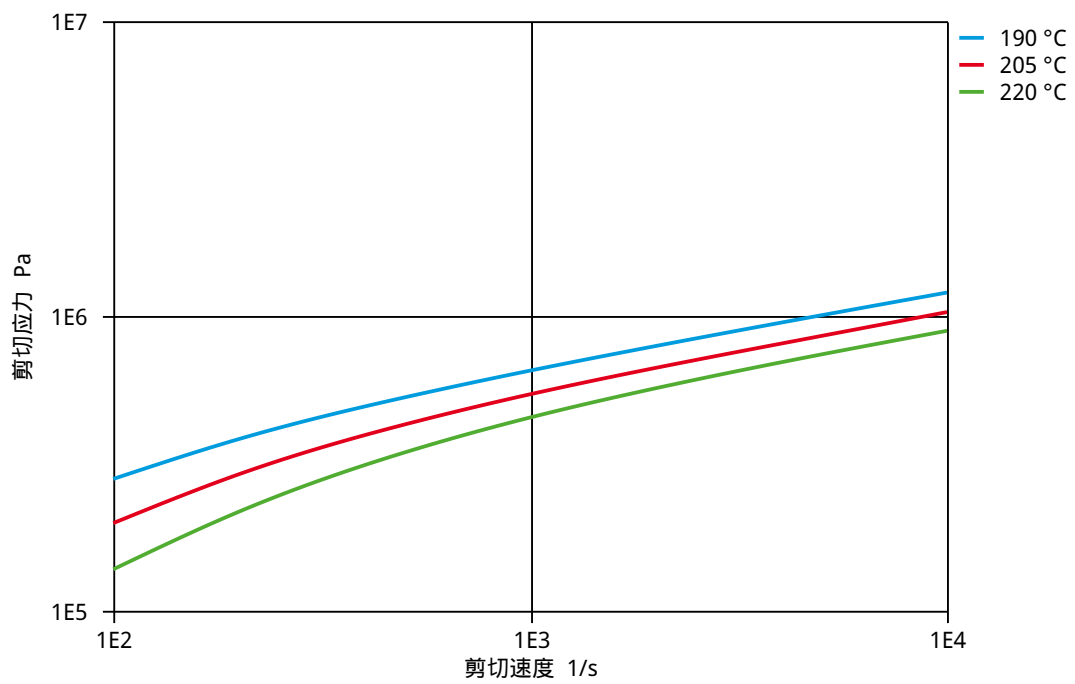




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剪切应力 - 剪切速度

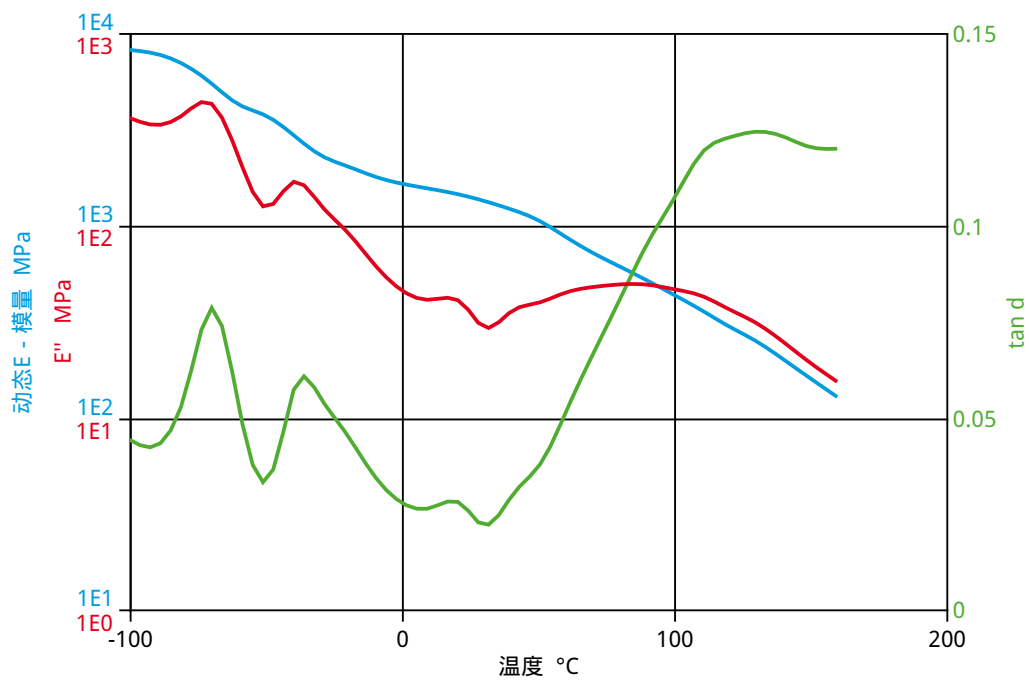




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ACETAL RESIN

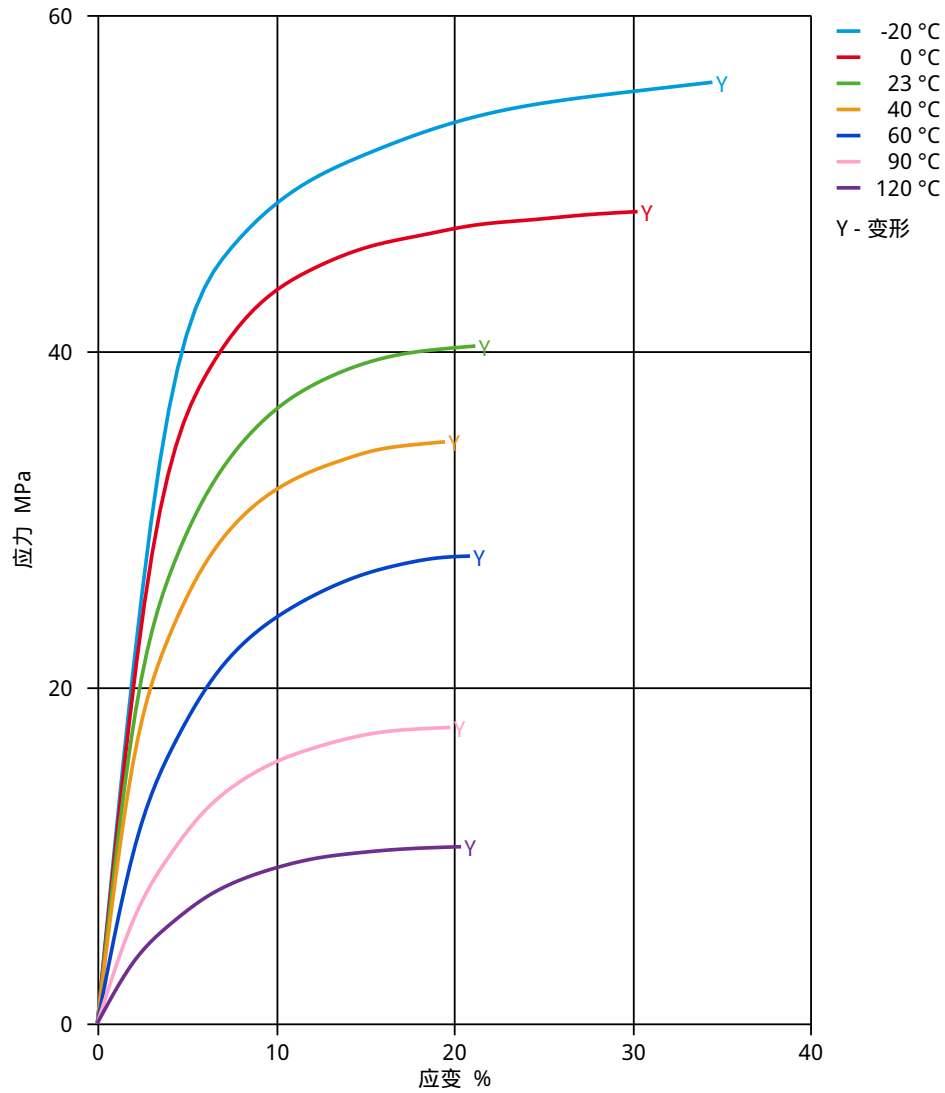
动态E - 模量 - 温度



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ACETAL RESIN

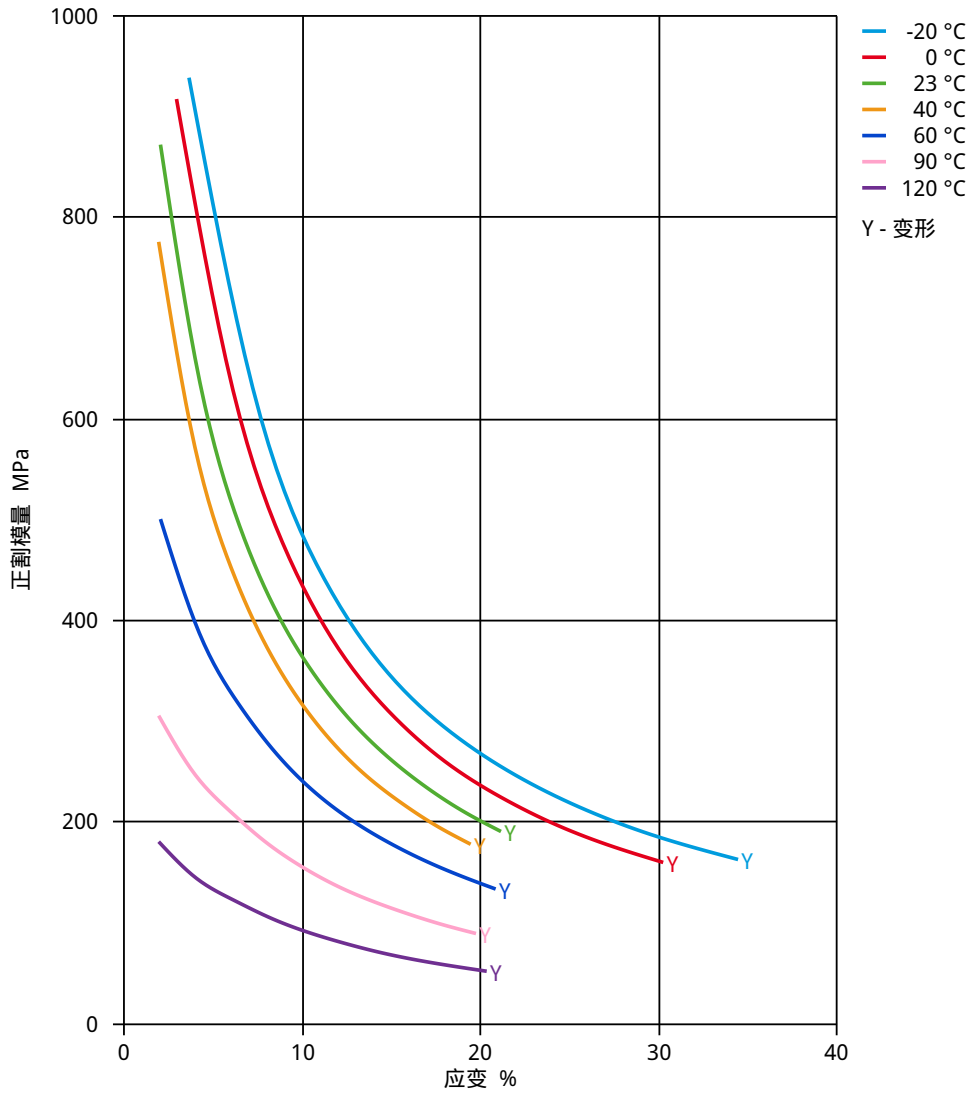
应力 - 应变.



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正割模量 - 应变.

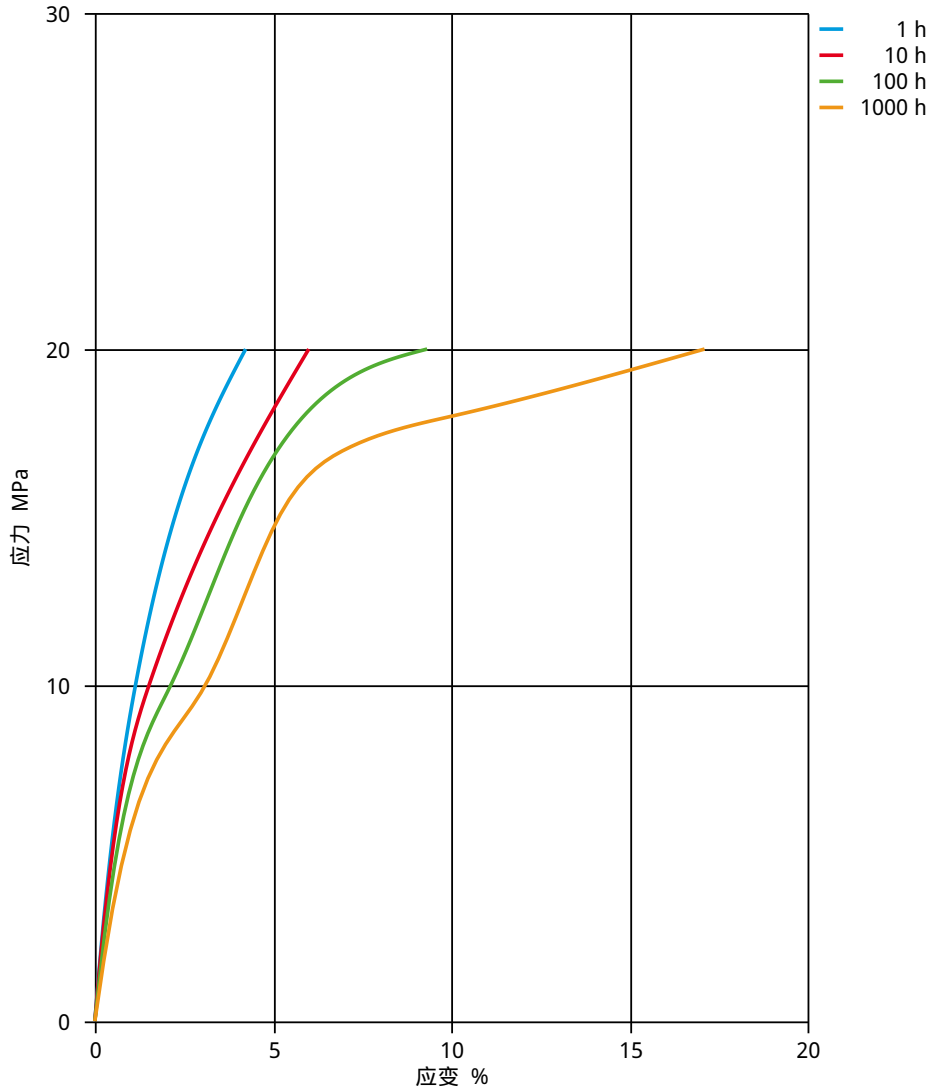




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应力 - 应变(等时的) 23°C

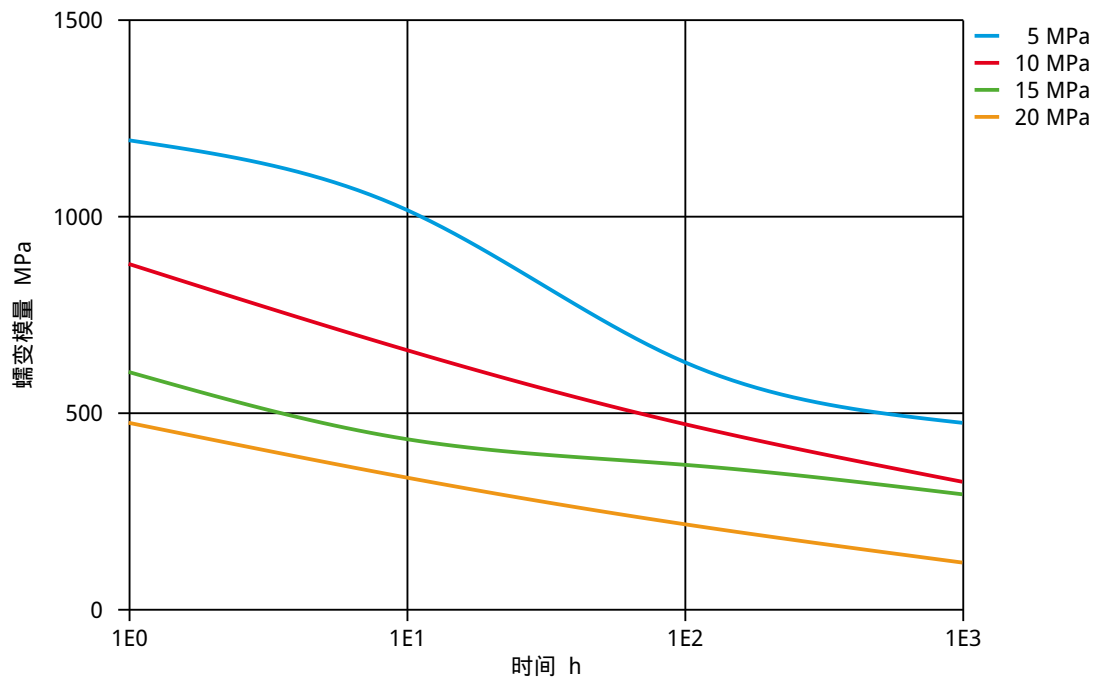




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蠕变模量 - 时间. 23°C

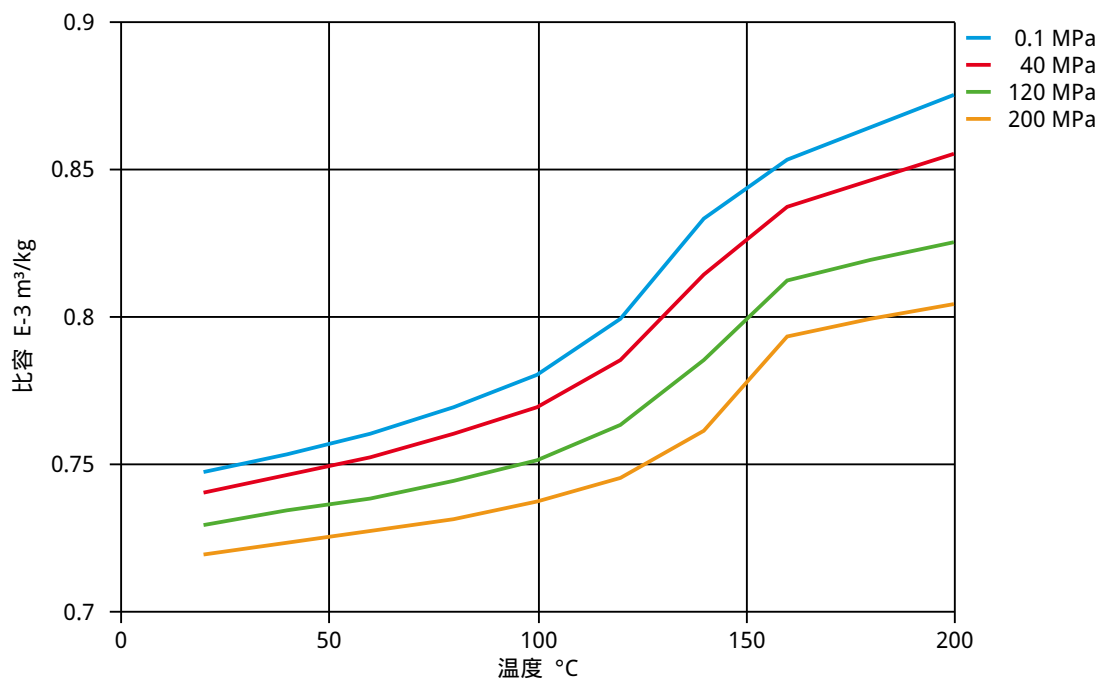




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比容 - 温度(pvT)



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