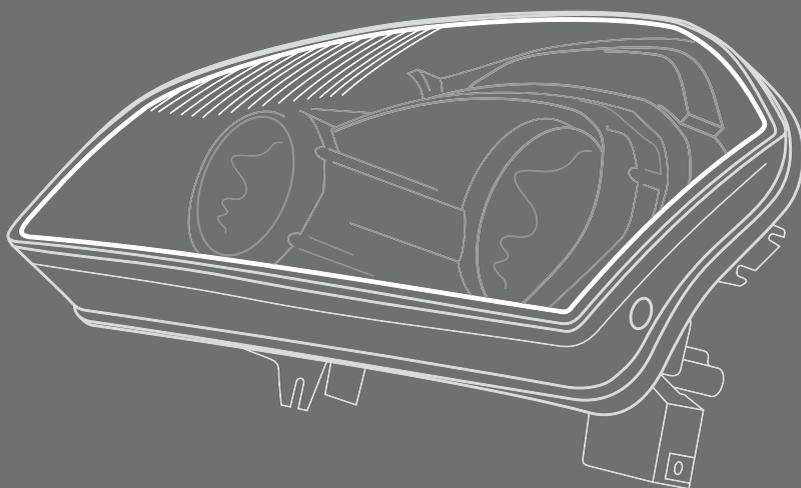




GRAFE

FUTURE IN PLASTICS



PLEXIGLAS®

SMALL-VOLUME BUSINESS FROM
PLEXIGLAS® MOULDING COMPOUNDS
FROM RÖHM GMBH



**We can produce any PLEXIGLAS®
moulding compound in your desired
colour, starting from a compound
quantity of 25 kg.**

COOPERATION

Through the cooperation with Röhm GmbH, we combine the product and colour quality of PLEXIGLAS® and ACRYLITE® products with our colour diversity and speed in terms of development, delivery times and a comprehensive personal service in the small-volume business.

COMPETENCE

We develop every PLEXIGLAS® moulding compound for you in your desired colour.

An overview of the colours produced since July 2020 can be found in the following tables.



GRAFE is a specialist in the modification of thermoplastics. We produce for the national and international market at our plant in Blankenhain.

RAPIDITY

Can you find your desired colour in this overview? Then we can send you a price quote within 24 hours.

We will prepare all other Röhm colours for you and you will receive the corresponding offer within 7 working days.

SERVICE

On request, we will develop a colour in the PLEXIGLAS® moulding compound of your choice together with you or directly according to your design template.

Compound quantities from 25 kg for sampling are a matter of course. After inspection and approval by Röhm GmbH, a transfer to a PLEXIGAS® branded article is possible.

	PLEXIGLAS®	Special features
BASIC	6N	<ul style="list-style-type: none"> • Very good mechanical properties • Good heat resistance • Excellent flowability / melt viscosity
	7N	<ul style="list-style-type: none"> • Very good mechanical properties • High heat resistance • Very good flowability / melt viscosity
	8N	<ul style="list-style-type: none"> • Best mechanical properties • Highest heat resistance • Good flowability / melt viscosity
	7H	<ul style="list-style-type: none"> • Very good mechanical properties • High heat resistance • Good melt strength
	7M	<ul style="list-style-type: none"> • Better flow properties
	8H	<ul style="list-style-type: none"> • Best mechanical properties • Higher heat resistance • High melt strength
IMPACT	Resist zk20	<ul style="list-style-type: none"> • Increased fracture strength to avoid demoulding fracture during injection moulding • Improved stress crack resistance
	Resist zk30	<ul style="list-style-type: none"> • Good fracture strength and impact resistance • Improved stress crack resistance • Tested dishwasher resistance
	Resist zk40	<ul style="list-style-type: none"> • Very good fracture strength and impact resistance • Improved stress crack resistance
	Resist zk50	<ul style="list-style-type: none"> • Highest fracture strength and impact resistance • Improved stress crack resistance • Tested dishwasher resistance
	Resist zk5BR	<ul style="list-style-type: none"> • Very high fracture strength and impact resistance • Improved stress crack resistance • Balanced property profile
	Resist zk6BR	<ul style="list-style-type: none"> • Highest fracture strength and impact resistance • Improved stress crack resistance • Balanced property profile
	Resist zk4HC	<ul style="list-style-type: none"> • Improved fracture strength and impact resistance • Best stress crack resistance of all impact modified moulding compounds
	Resist zk5HC	<ul style="list-style-type: none"> • High fracture strength and impact resistance • Best stress crack resistance of all impact modified moulding compounds
	Resist zk6HC	<ul style="list-style-type: none"> • Excellent fracture strength and impact resistance • Best stress crack resistance of all impact resistant moulding compounds
	Resist zk5HF	<ul style="list-style-type: none"> • High fracture strength and impact resistance • Improved resistance to stress cracking • Excellent flow behaviour
	Resist zk6HF	<ul style="list-style-type: none"> • Excellent fracture strength and impact resistance • Improved resistance to stress cracking • Very good flow behaviour
	Resist AG 100	<ul style="list-style-type: none"> • Highest fracture strength and impact resistance • Improved stress crack resistance • Balanced property profile • Significant reduction of reversible haze at very high and low temperatures • Low temperatures • Increased heat resistance
	OPTICAL & HEAT	Optical HT
Heatresist FT15		<ul style="list-style-type: none"> • high heat resistance with good flowability at the same time
Heatresist hw55		<ul style="list-style-type: none"> • Higher heat resistance • Improved stress crack resistance • Optimised inherent colour

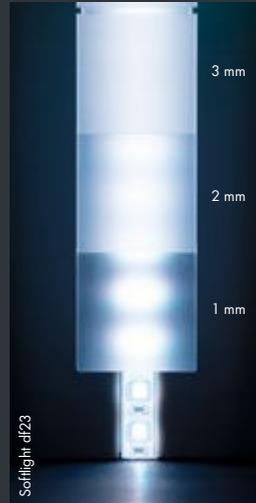
Applications		AMECA	MVR1	Vicat2	Charpy3
			cm ³ / 10min	°C	kJ/m ²
	Injection moulding of optical and technical moulded parts		12	96	20
	Injection moulding of optical and technical moulded parts	✓	6	103	20
	Injection moulding of optical and technical moulded parts	✓	3	108	20
	Extrusion of optical and technical profiles and sheets	✓	1,4	103	20
	Extrusion of profiles and sheets in lighting technology	✓	2,9	104	20
	Extrusion of optical and technical profiles and sheets	✓	0,8	108	20
	Injection moulding of shaped parts (Applications in the area of extrusion and co-extrusion of profiles are possible.)	✓	2	102	25
	Injection moulding of shaped parts (applications in the area of extrusion and co-extrusion of profiles are possible.)	✓	1,4	98	55
	Injection moulding of shaped parts (Applications in the area of extrusion and co-extrusion of profiles are possible.)	✓	0,7	94	80
	Injection moulding of shaped parts (Applications in the area of extrusion and co-extrusion of profiles are possible.)		0,1	75	n.b.
	Injection moulding of moulded parts as well as for the extrusion and co-extrusion of profiles and sheets.	✓	3,3	100	50
	Extrusion and co-extrusion of profiles and sheets as well as for the Injection moulding of shaped parts.		1,6	95	80
	Extrusion and co-extrusion of profiles and sheets	✓	1,1	102	25
	Extrusion and co-extrusion of profiles and sheets		0,7	100	55
	Extrusion and co-extrusion of profiles and sheets		0,4	97	80
	Injection moulding and extrusion of sheets and profiles		8,1	96	50
	Injection moulding and extrusion of sheets and profiles.		4,2	94	75
	Extrusion and co-extrusion of profiles and sheets as well as for the suitable for injection moulding of moulded parts.	✓	1,1	105	120
	Particularly suitable for injection moulding and extrusion of technical moulded parts.		2	118	20
	Injection moulding		4,5	115	18
	Injection moulding of technical moulded parts.	✓	1,2	119	20

*1 Melt volume rate MVR (230/3,8), *2 Vicat softening temperature (B/50), *3 Charpy-impact strength (23 °C)

PLEXIGLAS® Softlight

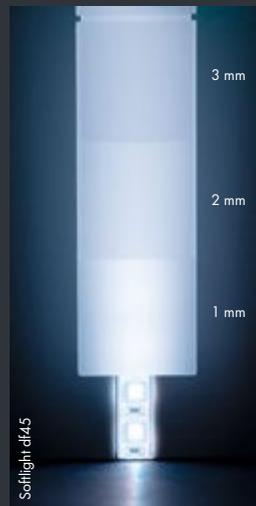
Softlight df2x

- Pure forward scattering
- Very high transmission even with high wall thicknesses
- Weak to medium scattering
- Frosted surfaces in extrusion
- Application for backlight or edge lighting
- Ambient effects
- AMECA



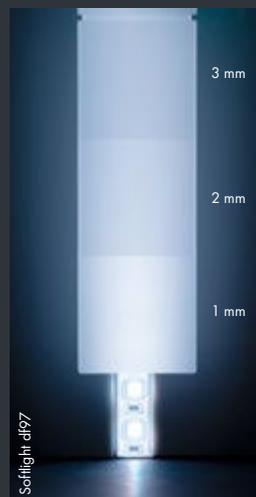
Softlight df4x

- Forward and backward scattering
- Good balance of light scattering vs. transmission for wall thicknesses up to 3mm
- Medium to strong scattering
- Frosted surfaces in extrusion
- Application for backlighting
- Greatly reduced hot spots with LED light sources



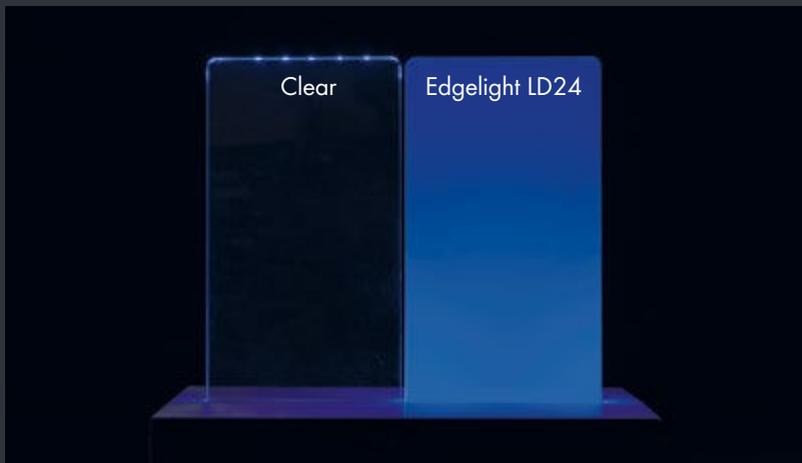
Softlight df9x

- Forward and backward scattering
- Good balance of light scattering vs. transmission for wall thicknesses up to 3mm
- Medium to strong scattering
- Application for backlighting
- Greatly reduced hot spots with LED Light sources
- AMECA



PLEXIGLAS® Edgelight

Components made from PLEXIGLAS® Edgelight are crystal clear and transparent when the light is not switched on. These moulding compounds are optimised for edge lighting, even over longer distances.



Edgelight LD 12-96

- Fibre optics Ambient light
- Crystal clear and coloured displays
- Illuminated buttons, switches
- Dual Use Display
- AMECA

No additional diffusion foils or microstructures need to be applied to the surface of the components for uniform light extraction over the entire surface.

NOMENCLATURE

All light diffusing products are available crystal clear and coloured.

	BRAND FAMILY	GRADE	DIFFUSOR	COLOR
PLEXIGLAS®	Softlight	zk6BR	df45	white 0V606
PLEXIGLAS®	Edgelight	8N	LD12	gray 7V205

Examples

	Brand Family	Grade	Diffusor	Color
PLEXIGLAS®	Softlight	7N	df23	
PLEXIGLAS®	Softlight	zk30	df22	
PLEXIGLAS®	Softlight	zk6BR	df21	
PLEXIGLAS®	Edgelight	8N	LD48	
PLEXIGLAS®	Softlight	zk5BR	df22	red 33691
PLEXIGLAS®	Softlight	8N	df23	red 33691
PLEXIGLAS®	Softlight	6N	df93	red 33691
PLEXIGLAS®	Softlight	7H	df97	red 33691
PLEXIGLAS®	Edgelight	8N	LD12	red 33691
PLEXIGLAS®	Softlight	zk4BR	df22	blue 5V212
PLEXIGLAS®	Softlight	7N	df43	

PLEXIMID®

PLEXIMID® is a polymethylmethacrylimide (PMMI) with a high heat deflection temperature that is particularly suitable for applications with high thermal stress, such as headlight lenses, drum lenses and recessed furniture lights. In addition to high light transmission, optical purity, and excellent strength and stiffness, these special moulding compounds offer extremely stable optical values even after prolonged exposure to heat.

PLEXIMID®

TT50

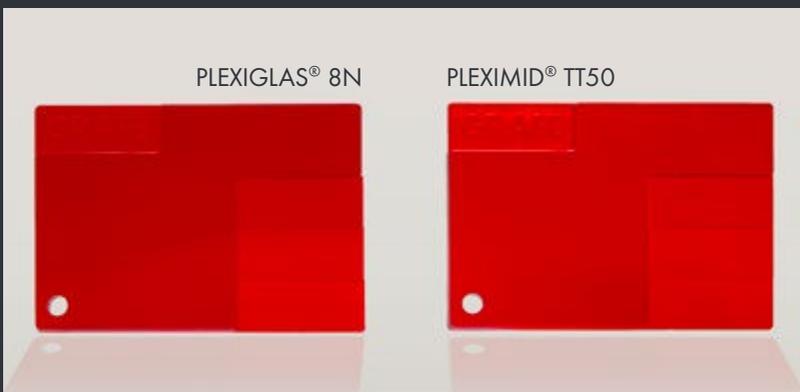
- High heat resistance
- Excellent light transmission and optical clarity
- High strength and stiffness
- Good weathering resistance

Thermal Properties	Parameter	Standard	PLEXIMID® TT50
Vicat softening temperature	B / 50	ISO 306	150 °C
Temperature of deflection under load	0.45 MPa	ISO 75	146 °C
Temperature of deflection under load	1.8 MPa	ISO 75	142 °C

TT70

- High heat resistance
- Excellent light transmission and optical purity
- Very high mechanical strength and stiffness
- Good weather resistance

Thermal Properties	Parameter	Standard	PLEXIMID® TT70
Vicat softening temperature	B / 50	ISO 306	170 °C
Temperature of deflection under load	0.45 MPa	ISO 75	158 °C
Temperature of deflection under load	1.8 MPa	ISO 75	149 °C



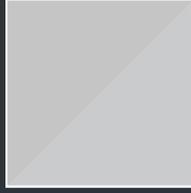
Colors

Transparent	Translucent	Opaque	Softlight	Edgelight
	06031	02183	df20	
	06071	02291	df21	
	06082	0V003	df21 0V220	
	06230	0V028	df22	
	06331	0V036	df23	
	06501	0V065	df25 0V177	
	06510	0V118	df42	
	06521	0V148	df43	
	06531	0V160	df44	
	0V027	0V169	df45 0V606	
	0V032	0V176	df47	
	0V033	0V178	df93	
	0V034	0V208	df97	
	0V052	0V219		
	0V072			
	0V090			
	0V144			
	0V152			
	0V216			

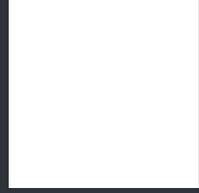
Transparent	Translucent	Opaque	Softlight	Edgelight
13115	1V105	1V091		
1V400		1V093		

Transparent	Translucent	Gedeckt	Softlight	Edgelight
23085	26252			
23095	2V066			
23105				
23340				
2V019				
2V037				
2V050				

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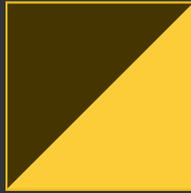
Translucent



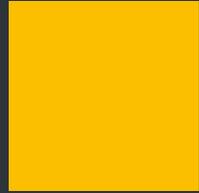
White



Transparent



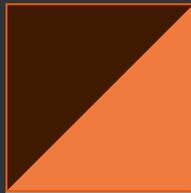
Translucent



Yellow



Transparent



Translucent



Orange

Colors

Transparent	Translucent	Opaque	Softlight	Edgelight
31013	34314	3V026	df21 33691	LD12 33691
31642	36213	3V028	df22 33691	
33253	36751	3V130	df23 33681	
33263	3V026	3V132	df23 33691	
33661	3V131	3V184	df93 33691	
33681	3V147	3V230	df97 33691	
33691	3V187		df97 33691	
33701	3V202		df97 33701	
33711				
33721				
33780				
3V124				
3V125				
3V126				
3V136				
3V139				
3V153				
3V192				
3V210				
3V229				
3V231				

Transparent	Translucent	Opaque	Softlight	Edgelight
4V053	4V048			

FUTURE IN PLASTICS



Transparent



Translucent



Red



Transparent



Translucent



Violet

Colors

Transparent	Translucent	Opaque	Softlight	Edgelight
53351	56490	5V239	df22 5V212	
51601	5V049	54133		
53351	5V151	54234		
55480	5V225	5V016		
5V061	5V250			
5V065				
5V074				
5V076				
5V077				
5V081				
5V127				
5V135				
5V231				
5V245				
5V260				
5V261				

Transparent	Translucent	Opaque	Softlight	Edgelight
65542	6V211	6V100		
65590	6V235			
65621				
6V057				
6V060				
6V200				
6V209				

FUTURE IN PLASTICS



Transparent



Translucent



Blue



Transparent



Translucent



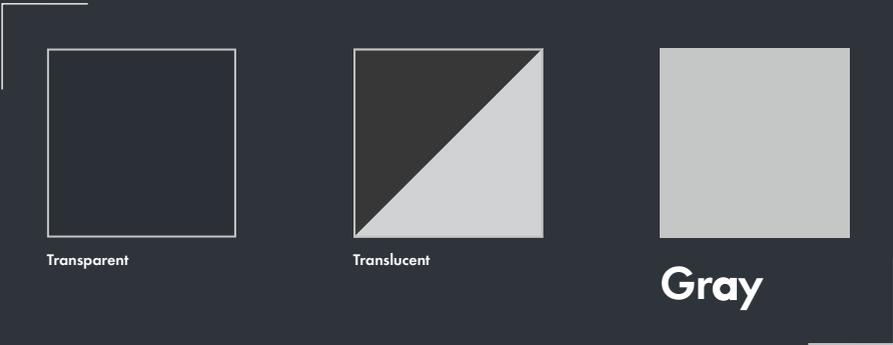
Green

Colors

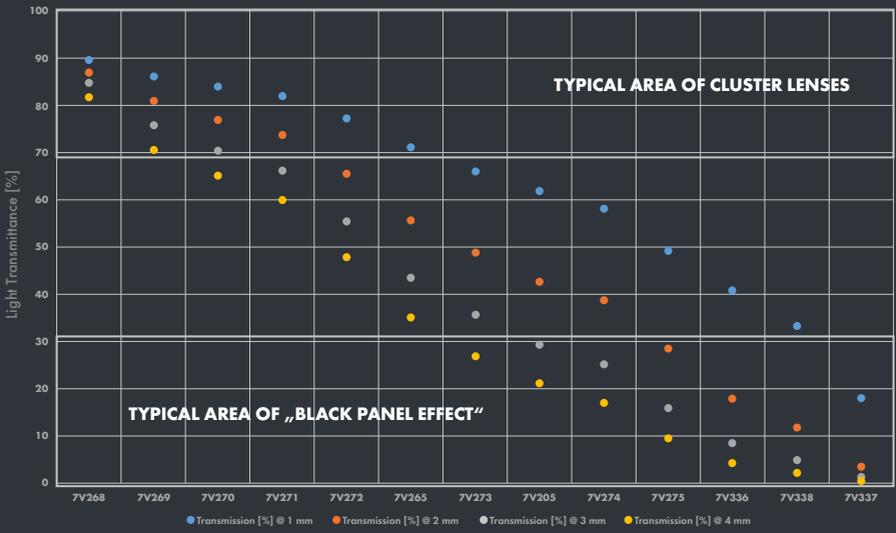
Transparent	Translucent	Opaque	Softlight	Edgelight
75451	76570	72314	df22 7V272	LD12 7V205
75471	7V383	72363	df22 7V273	
75541		74201	df23 7V265	
77670		74342	df23 7V269	
7V034		7V028	df23 7V272	
7V042		7V078	df23 7V273	
7V062		7V143	df92 7V376	
7V076		7V173		
7V115		7V184		
7V142		7V200		
7V197		7V201		
7V205 BP*		7V218		
7V222		7V225		
7V228		7V253		
7V244		7V279		
7V261		7V326		
7V262				
7V265 BP*				
7V268 BP*				
7V269 BP*				
7V270 BP*				
7V271 BP*				
7V272 BP*				
7V273 BP*				
7V274 BP*				
7V275 BP*				
7V276				
7V310				
7V336 BP*				
7V337 BP*				
7V338 BP*				
7V343				
7V351				
7V356				
7V357				
7V377				
7V384				
7V388				

* BP: Black Panel

FUTURE IN PLASTICS



MARKETS FOR MOLDING COMPOUNDS **PLEXIGLAS® - SECRET UNTIL LIT** (BLACK PANEL)



Light source: NL A/2°

© Rohm GmbH

Colors

Transparent	Translucent	Opaque	Softlight	Edgelight
83501		8V043		
8V156		8V044		
8V159		8V045		
8X313		8V099		

Transparent	Translucent	Opaque	Softlight	Edgelight
	9V040	9V036		
		90053		
		90114		
		9V016		
		9V022 (no 8N)		
		9V031		
		9V042		
		9V061		

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Transparent



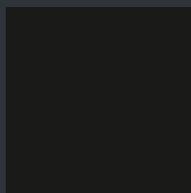
Translucent



Brown



Translucent



Black



GRAFE

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