

### HOJA PARÁMETROS PRUEBAS INYECCIÓN

FECHA	014/09/2021	REF. MOLDE	1714/0/1	TERMOPLÁSTICO	PCR PMMA Incoloro (Altuglas)R-LIFE VMR
		CAVIDADES	6 / 6		
TÉCNICO		COLORANTE ( % )		TIEMPO/R.P.M COLORIMETRO	
MÁQUINA	27	ADITIVO	n/a	TIEMPO/R.P.M COLORIMETRO	

#### TEMPERATURAS HUSILLO

	BOQUILLA	Z1	Z2	Z3	Z4
Nominal	210	190	185	180	175
Real	210	194	200	180	175

#### TEMPERATURAS CÁMARA MOLDE

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	RC1	RC2
N	195	200	195	205	200	200								
R	195	200	195	205	200	200								
	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	RC3	RC4
N	185	185	180	185										
R	185	185	180	185										

B. Boquilla R. Ramal RC. Ramales Centrales

#### MOLDE TEMPERATURAS

LADO INYECCIÓN			LADO EXPULSIÓN		
Zona Molde		° C	Zona Molde		° C
Vasos		80 grados	Punzones		75 grados
Culs		70 grados			

#### TIEMPOS/PRESIONES

T. CICLO	110.85	T.ENFRIAMIENTO	65	P. LIMITE	1000
T.PLASTIFICACIÓN	53.92	T. 2ª. PRESIÓN	12.50	P. REAL INY.	1006
T. INYECCIÓN	22.62	T. SEG. MOLDE	5	P. REAL C.C	1001

#### REGISTRO VELOCIDADES/PRESIONES

Perfiles	1	2	3	4	5	6
m.m/s	20-20	20-25	25-25	20-20	15-12	
m.m	0-50	60-70	80-460	470-480	490-500	
Presión	1000	1000	1000	1000	1000	
2ª.PRESIÓN		COTA CAMBIO: 25		m.m	COJÍN: 24.2	m.m
	1	2	3	4	5	6
Presión	0	650	675	725		
Tiempo	12.50	12	5	0		

#### PLASTIFICACIÓN

r.p.m	120	120	50		Succión	10
m.m	20	505	510		m.m/s	2
Cp	200	200	50		m.m	

#### VARIOS

ABERTURA MOLDE	REC. SEG. MOLDE	P. SEG. MOLDE	PIEZAS/HORA
355 m.m	110 m.m	525 V Bar	und.
Φ BOQUILLA	CARRO	PESO PIEZA	PESO INYECTADA
m.m	M ( x ) F ( x )	4.28 / 4.28 g.	8.57 g.

#### REGISTRO CAMBIOS

FECHA	PARAMETRO	CAMBIO	MOTIVO	TÉCNICO

TOLERANCIA PARÁMETROS +- 5 %

APROBADO RESPONSABLE INYECCIÓN: Firma/fecha	APROBADO RESPONSABLE CALIDAD: Firma/fecha:
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## OBSERVACIONES:

**Data: 14/09/2021**

**Prueba de molde con material reciclado, PCR PMMA INCOLORO, Altuglas R-LIFE VMR**

**A nivel funcional del molde no hemos detectado ningún problema.**

**A nivel de proceso de inyección, se han realizado 2 pruebas de inyección, variando inicialmente las temperaturas de secado de material, aumentado temperaturas de moldes y husillo, el motivo es porque se detectan una serie de ráfagas/chispeado en las piezas que aparentemente son humedad en el material. Al aumentar temperaturas de secado se reducen considerablemente, pero siguen saliendo piezas con chispeado.**

**Detectamos algunos problemas de material enganchado en la válvula molde.**

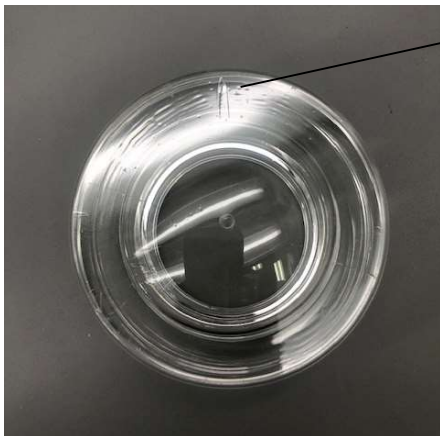
**Las piezas nos dan la sensación que tienen un tono amarillento, incluso trabajando con las temperaturas recomendadas del fabricante.**

**No podemos utilizar este material en condiciones óptimas de proceso, porque aleatoriamente aparecen piezas, (varias inyectadas seguidas) con cambios de tonalidad principalmente piezas blanquecinas (ver foto). Estos cambios de tonalidad vienen debido a posibles contaminaciones en el material reciclado.**

**No podemos continuar con pruebas de molde por falta de material, solo disponíamos de 75 kilos para probar 2 moldes.**

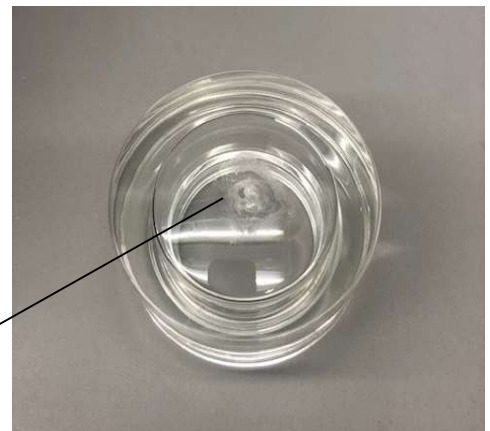
**Necesitaríamos probar con mas alternativas de materiales reciclados (PMMA), diferentes proveedores y calidades de material, por otro lado, disponer de la cantidad de material suficiente para poder probar y optimizar los procesos, (consultar con dto de Inyección).**

**Fotos Molde/piezas:**



Marcas de humedad y posible contaminación del material.

Algunos problemas de material pegado en válvula, tono de pieza algo amarillento.



Cambios esporádicos de tono de material, piezas con ráfagas blancas.

# ALTUGLAS™ R-LIFE VM50-R

## Technical Datasheet

1/02/17

Ref : SDA/R-life VM50R/2021\_02\_09/Rev2

### Specifications

Conditions / Method	Measurement Standard	Unit	Specification
Melt Index	230°C / 1.8kg	ISO 1133	g/10min
Vicat softening Point	850 (50N)	ISO 306	°C

### General Properties

Conditions / Method	Measurement Standard	Unit	Typical Value
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#### General characteristics

Density	23°C	ISO 1183	g/cm³	1.18
Mold Shrinkage		ASTM D-955	%	0.2-0.6

#### Processing recommendations

PROCESS – Melt temperature	Typical values	°C	200-220
PROCESS – Mold temperature	Typical values	°C	50-70
PROCESS – Drying conditions	Typical values	°C	70-80

#### Mechanical properties

Tensile Strength at Break	23°C	ISO 527-2	MPa	65
Elongation at break	23°C	ISO 527-2	%	4
Tensile Modulus	23°C	ISO 527-2	MPa	3100
Charpy Impact resistance (un-notched)	23°C	ISO 179-1eU	kJ/m²	20
Charpy Impact resistance (notched)	23°C	ISO 179-1eU	kJ/m²	<2
Izod Impact resistance (notched)	23°C	ISO 180	kJ/m²	<2
Surface hardness (Rockwell scale M)	23°C	ASTM D785	HRR	M-88

#### Optical Properties

Refractive Index	23°C	ISO 489	-	1.49
Light Transmittance 3mm	23°C	ASTM D1003	%	92
Haze 3mm	23°C	ASTM D1003	%	<1

#### Thermal Properties

HDT	(1.82 MPa)	ISO 75	°C	83
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