

## LNP\* Lubricomp\* Compound LCL33E

Americas: COMMERCIAL

Also known as: LCL-4033 EM  
Product Reorder Name: LCL33E

LNP LUBRICOMP\* LCL33E is a compound based on Polyetheretherketone resin containing Carbon Fiber, PTFE. Added features of this material include: Easy Molding.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, break	179	MPa	ASTM D 638
Tensile Strain, break	1.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	16610	MPa	ASTM D 638
Flexural Stress	266	MPa	ASTM D 790
Flexural Modulus	12960	MPa	ASTM D 790
Tensile Stress, break	187	MPa	ISO 527
Tensile Strain, break	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	14700	MPa	ISO 527
Flexural Stress	275	MPa	ISO 178
Flexural Modulus	14700	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	491	J/m	ASTM D 4812
Izod Impact, notched, 23°C	64	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	8	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	34	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 1.82 MPa, 3.2mm, unannealed	>298	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.37E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.17E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.36E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.17E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	>240	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.43	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.07	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.1 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.4 - 0.7	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.1 - 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.3 - 0.7	%	ISO 294
Wear Factor Washer	13	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.35	-	ASTM D 3702 Modified
Static COF	0.28	-	ASTM D 3702 Modified
Density	1.43	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.7	%	ISO 62
FLAME CHARACTERISTICS	Value	Unit	Standard

## Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Maximum Moisture Content	0.1	%
Melt Temperature	380 - 390	°C
Front - Zone 3 Temperature	380 - 395	°C
Middle - Zone 2 Temperature	365 - 375	°C
Rear - Zone 1 Temperature	350 - 360	°C
Mold Temperature	140 - 165	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	60 - 100	rpm

Source GMD, last updated:09/29/2004

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

**Disclaimer :** THE MATERIALS AND PRODUCTS OF THE BUSINESSES MAKING UP THE SABIC INNOVATIVE PLASTICS COMPANY, ITS SUBSIDIARIES AND AFFILIATES ("SABIC IP"), ARE SOLD SUBJECT TO SABIC IP' S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SABIC IP MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (I) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (II) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SABIC IP MATERIALS, PRODUCTS, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SABIC IP' S STANDARD CONDITIONS OF SALE, SABIC IP AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS OR PRODUCTS DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of SABIC IP' s materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating SABIC IP materials or products will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of SABIC IP' s Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by SABIC IP. No statement contained herein concerning a possible or suggested use of any material, product or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of SABIC Innovative Plastics Company or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product or design in the infringement of any patent or other intellectual property right

\* LNP is a trademark of the SABIC Innovative Plastics Company

\* Lubricomp is a trademark of the SABIC Innovative Plastics Company