

SABIC® PCC

SABIC® PCG family is SABIC's dedicated PP and PE solution especially designed to meet the stringent requirements of the pharmaceutical and medical industry. They are produced and handled with a dedicated set of cares and procedures with the vision to deliver optimal patient safety:

- Production in accordance with the requirements of Good Manufacturing Practice (GMP)
- Compliance with Food standard, European Pharmacopoeia (EP) and United State Pharmacopoeia (USP VI)
- No change policy on product composition/formulation; minimum 18 months pre notification prior to grade change or deletion
- Safety stock
- Access to Drug Master File data (DMF)
- Quick on-line access to material documentations
- Support towards material testing, validation and registration
- Fully dedicated sales and technical support; long-term joint development partnership
- Worldwide supply

SABIC® PCG - CONTAINERS FOR SMALL AND LARGE VOLUME PARENTERAL SOLUTIONS

- · Additive-free LDPE resins; full compliance with European Pharmacopoeia monograph 3.1.4 and USP VI
- Wide range of density to help optimize squeezability and sterilization conditions
- Typically used on Blown Fill Seal (BFS) machines (Rommelag Bottelpack®, Weiler)

GRADE NAME	POLYMER	MFR (G/10MIN)	DENSITY (KG/M3)	
SABIC® PCG02	LDPE	1.9	921	Additive-free resin commonly used in SVP containers (ampoule, small bottle) with high squeezability. Its higher flow allows optimized processing conditions. BFS process
SABIC® PCG80	LDPE	0.3	922	Additive-free resin commonly used in SVP containers (ampoule, small bottle) with high squeezability. BFS process
SABIC® PCG01	LDPE	0.8	925	Additive-free resin commonly used in SVP containers (ampoule, small bottle) with good squeezability. BFS process
SABIC® PCG00	LDPE	0.3	926	Additive-free resin commonly used in SVP ampoules/bottles and LVP bottles using BFS process. Sterilizable by autoclaving up to 106°C
SABIC® PCG06	LDPE	0.5	928	Additive-free resin. Typically used for LVP IV bottles using BFS process; sterilizable by autoclaving up to 110°C

SABIC® PCG - DISPOSABLE SYRINGES, DIAGNOSTIC TUBES, CARTRIDGES

- Ultra-clear PP resin with enhanced transparency for better visual inspection of drug content
- Peroxide-free PP resins with improved cleanliness and purity
- High flow grades that enable higher design capability and energy saving opportunity during processing

GRADE NAME	POLYMER	MFR (G/10MIN)	DENSITY (KG/M3)	
SABIC® PCGH19	PP-HPP	19	905	Our PP resin commonly used in 3-part syringe plunger applications and various injection molded parts
SABIC® PCG3054	HDPE	30	954	Our alternative HDPE resin commonly used for 2-part syringe plungers. Its high flow allows optimized processing conditions and high production rate. The resin has a good stiffness
SABIC® PCGR40	PP-RCP	40	905	Peroxide-free PP resin with glass-like transparency. Its high flow allows lower energy consumption while maximizing production rate
SABIC® PCGR40L	PP-RCP	40	905	Peroxide-free PP resin with glass-like transparency. Its high flow allows lower energy consumption while maximizing production rate. The grade is lubricated in order to reduce friction

SABIC® PCG – CONTAINERS FOR OTC AND PRESCRIPTION DRUG PRODUCTS

- Additive-free LDPE resins with low interaction with drug contents during expected shelf-life
- Wide range of density for optimized squeezability, ESCR and sterilization temperature
- $\bullet\,$ PP option for enhanced transparency and autoclaving sterilization at 121 $^{\circ}\text{C}$

GRADE NAME	POLYMER	MFR (G/10MIN)	DENSITY (KG/M3)	
SABIC® PCG5421	HDPE	0.2	954	HDPE resin commonly used in white or natural bottle/container applications. Can be processed using EBM and/or IBM processes
SABIC® PCG00	LDPE	0.3	926	Additive-free resin commonly used in flexible bottles or containers; BM process
SABIC® PCG80	LDPE	0.3	922	Additive-free resin commonly used in bottle and/or container with good softness and high flexibility. BM process
SABIC® PCG01	LDPE	0.75	925	Additive-free resin commonly used in flexible bottle and/or container applications. BM process
SABIC® PCG02	LDPE	1.9	921	Additive-free resin commonly used in bottle and/or container with good softness and high flexibility. Its higher flow allows optimized processing conditions. BM process

SABIC® PCG - CAPS AND CLOSURES

- Optimized flow for optimal processing productivity (shorter injection cycle-time, faster cooling time)
- Additive-free LDPE resins with good organoleptic properties

GRADE NAME	POLYMER	MFR (G/10MIN)	DENSITY (KG/M3)	
SABIC® PCG453	HDPE	5	953	Medium flow resin with good rigidity/ESCR balance commonly used for caps and closures
SABIC® PCG863	HDPE	8	963	Resin with improved flow typically used for caps with high stiffness
SABIC® PCG3054	HDPE	30	954	Resin with high flow while showing good stiffness/ESCR balance used in caps
SABIC® PCGH19	HPP	19	905	Our alternative solution for PP caps & closures with good rigidity and high HDT; its higher flow allows optimized processing conditions
SABIC® PCG09	LDPE	7.5	924	Our solution for LDPE caps & closures with excellent flow, flexibility and softness balance
SABIC® PCG07	LDPE	7.5	920	Gain improved flexibility and softness from lower density
SABIC® PCG22	LDPE	22	919	Gain higher processing productivity from high flow; high flexibility and softness; typically used in tamper-evident caps and lids

SABIC® PCG – FLEXIBLE PACKAGING FOR DRUG PRODUCTS AND MEDICAL DEVICES

- · Wide range of mechanical properties to choose from to help optimize packaging integrity so as to preserve quality and sterility while enabling cost-efficiency from potential down-gauging
- Improved sealing properties and tear resistance from unique C6-LLDPE grade offer
 Additive-free and gamma sterilizable LDPE grades

GRADE NAME	POLYMER	MFR (G/10MIN)	DENSITY (KG/M3)	
SABIC® PCG80	LDPE	0.3	922	Our alternative solution for film with excellent toughness and outstanding biaxial shrink properties; good optical properties, high purity and gamma sterilizable; used in blown film
SABIC® PCG01	LDPE	0.8	925	Grade for thin film with combined excellent optical properties, processability and stifness; commonly used in lamination applications. High purity and gamma sterilizable; used in cast film
SABIC® PCG00	LDPE	0.3	926	Gain excellent optical and mechanical properties from high density. High purity and gamma sterilizable; used in blown film
SABIC® PCG61	C6-LLDPE	0.9	918	Our alternative solution for film with combined high tear resistance, high impact strength and excellent sealing properties; good optical properties; suitable for lamination; used in blown film
SABIC® PCGF0863	HDPE	8	964	Our alternative solution for film with excellent stiffness, very low gel level and improved water vapor permeability - typically used in extrusion coating application in blend with LDPE

LEGAL DISCLAIMER

Do not use SABIC® PCG product range in medical applications involving any of the following medical devices in accordance with the classification criteria and definitions as outlined in annex IX of the EU council directive on medical devices (93/42/EEC of 14 June 1993 including amendments):

- Class IIb implantable medical devices and both short-term and long-term surgically invasive devices
- All medical devices in class III

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