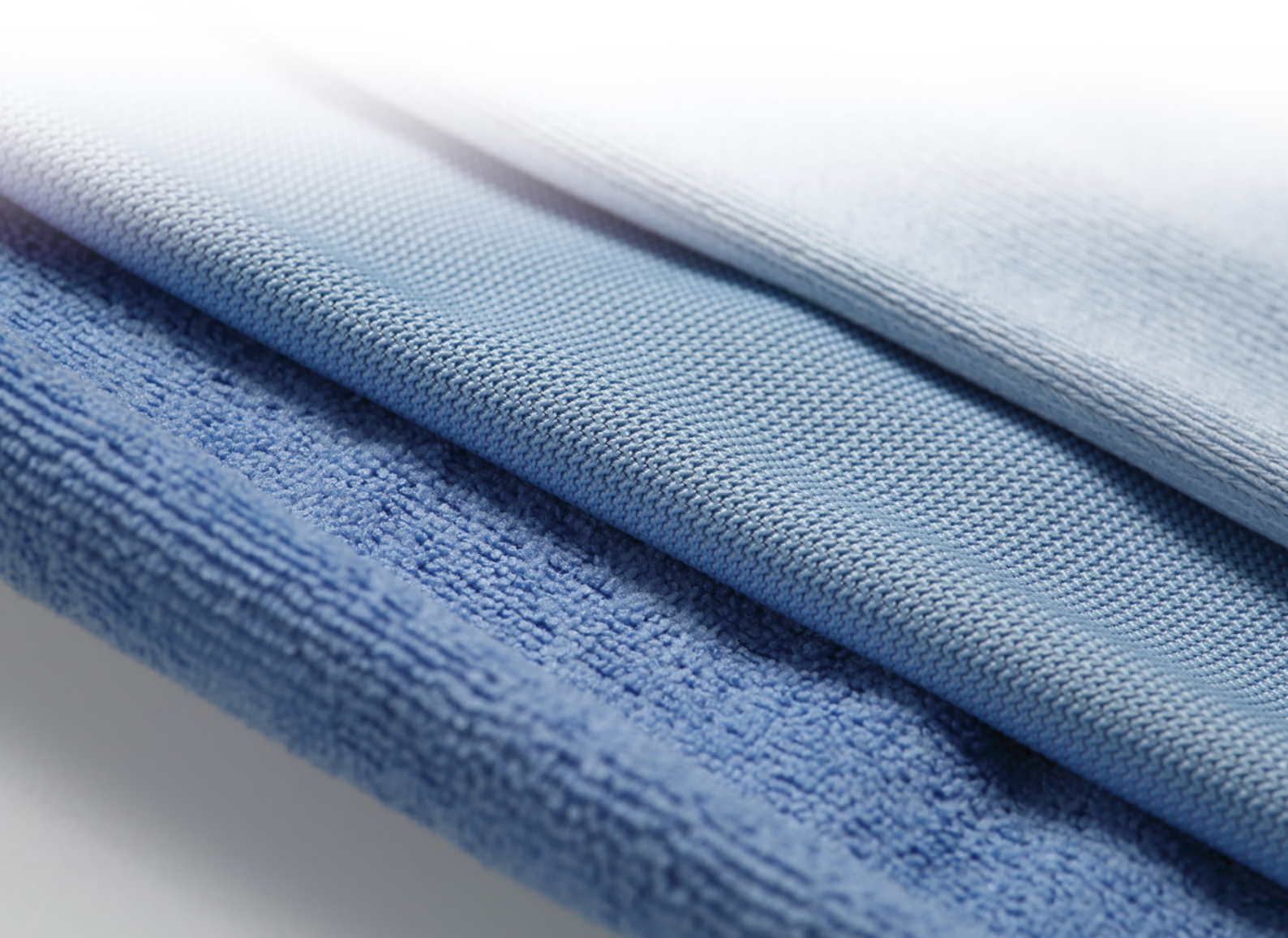
BARMAG

Bicomponent yarns
Filament yarn solutions and technologies



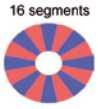
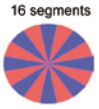
Why producing bico yarns?

Key benefits

A niche develops into a trend: bico yarns offer an almost unlimited range of applications. This makes these special yarns particularly interesting. Numerous possible polymer combinations bring to light the many properties of the bico yarns produced in this way.

Exploit the variety

Islands in the sea or core sheath, side by side or orange type – every cross section has its special properties. Or to put it another way, there is a perfect polymer combination with the right properties for almost any end use.

	1	2	3	3a	4	5	6	7	8	9	10	11	12
Type	core/sheath	core/steath eccentric	side by side full	side by side full	side by side hollow	side by side hollow eccentric	orange type with center 16 segments	orange type w/o center 16 segments	striped fibers	conductive fibers	island in the sea	profile bico	mixed fibers
													
Materials	RPET / PET PET / CoPET PET / PE PP / PP PP / PE	RPET / PET PP / PE PP / PP PET / CoPET	PET / PET PET/PTT PP / PE PP / PP PET / CoPET R-PET / R-PET PET / PE	PET / PET PET/PTT PP / PE PP / PP PET / CoPET R-PET / R-PET PET / PE	PET / PET PP / PE PP / PP PET / PE	PET / PET PP / PE PP / PP PE / PE	PET / PA6 PET / PA6.6 PET / CoPET	PET / PA6 PET / PA6.6 PET / CoPET	PET / PA6	PA6 / MB	PA6 / CoPET PET / CoPET	PP / PA6 PA6 / PA6 PET / R-PET PTT / PET	PET / PET PP / PP PA6 / PA6 PA 6.6 / PA 6.6 PET / CoPET
Final titer [dtex]	1.7 - 20	1.7 - 20	2 - 20	2 - 20	2 - 20	2 - 20	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	25 - 30 undrawn	< 0.05	15-20	-
Ratio [%/%]	30/70 - 80/20 90/10	30/70 - 70/30	50/50	50/50	50/50 - 70/30	30/70 - 70/30	50/50 65/35	50/50 65/35 80/20	50/50 70/30	50/50 70/30	80/20 50/50 70/30	50/50 30/70	

* different colors, different materials, different dtex, different profiles: Possible products, variety depending on the end-use

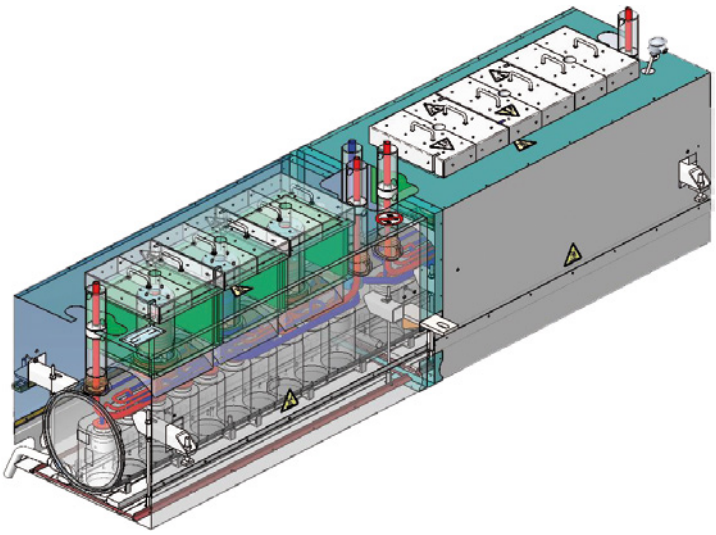
Guaranteed success
with the right equipment

Finding the right technology depends on your product. We have diverse solutions for diverse products. The optimal spinning concept requirements are dictated by the used polymer combinations such as low-melt, CoPET or special master batches. The spinning plant also has to take into account that the former standard mixing ratio has been altered from 70/30 to 80/20 or even 90/10.

Therefore, our solutions and technologies focus on yarn quality, process flexibility and reliability. Our promise: a proven process all the way through from melt preparation, spinning to take-up out of one hand. We guarantee excellent yarn quality, a broad variety of products and a wide range of processable polymer types.

SP8xB bico spinning unit

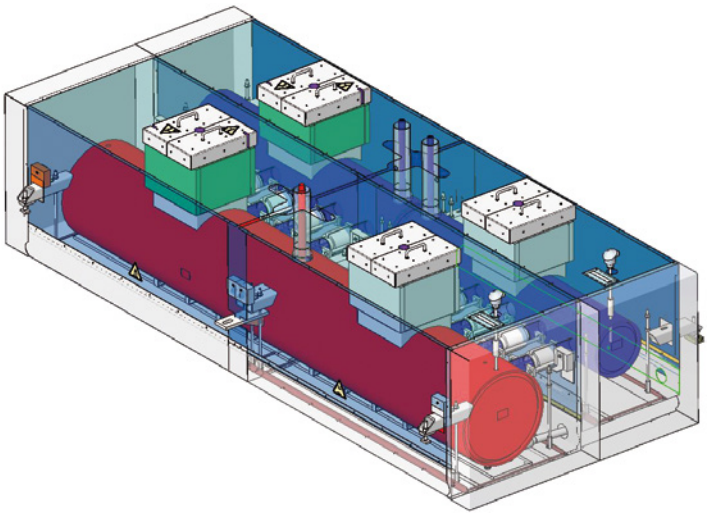
For products with polymer combinations which do not require to run significant different transfer line temperatures, we recommend a spinning concept based on our SP8 spin beam concept. The polymer line temperature is separately controlled up to the entry into the spin beam. From there, the polymer lines are heated in the collective dowtherm chamber and consequently temperature regulated. As usual for our SP8 beam concept, equal length bended polymer tubes ensuring uniform polymer quality without dead areas are standard. This concept also offers the energy efficiencies of our SP8 spin beam.



SP8xB dual temperature spin beam

Do you work with polymers that are processed at great differences in temperature or are sensitive to residence times? Then we recommend our new SP8 Dual Temperature spin beam concept.

This spin beam concept ensures the exact temperature separation between polymer type A and Polymer Type B. This is the basic requirement for excellent polymer quality and good yarn spin ability especially for sensitive polymers, as the polymer quality and viscosity can be adjusted exactly according to the process requirements. The complete separation of the dowtherm heating for the two different polymer supply lines and polymer pump units ensure the optimum spinning conditions for each polymer type almost up to the point where they are combined in the spin pack. This is in addition to the proven advantages of the SP8 spin beam concept.



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