

koźlok dymniok

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **23**
- SRM **17.2**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **16.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **14.6 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **6.2 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	wędzony bukiem	2 kg (48%)	82 %	10
Grain	red active	0.8 kg (19.2%)	79 %	35
Grain	BESTMALZ - Best Melanoidin	0.4 kg (9.6%)	75 %	71
Grain	Caramunich® typ I	0.22 kg (5.3%)	73 %	80
Grain	castle - Vienna Malt	0.7 kg (16.8%)	77.5 %	7
Grain	weyermann - Pszeniczny Czekoladowy	0.05 kg (1.2%)	73 %	1001
koniec zacierania				

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	14 g	60 min	10.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
wyeast munich lager	Lager	Slant	400 ml	---