

# Kozlak dymiony

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **26**
- SRM **14.4**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.6 liter(s)**
- Total mash volume **28.8 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **67 C**, Time **10 min**
- Temp **71 C**, Time **50 min**

## Mash step by step

- Heat up **21.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **10 min** at **67C**
- Keep mash **50 min** at **71C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.2 kg (30.6%)	80 %	4
Grain	Strzegom Monachijski typ I	2.2 kg (30.6%)	79 %	16
Grain	Słód Wędzony Steinbach	1.7 kg (23.6%)	80 %	5
Grain	Biscuit Malt	0.4 kg (5.6%)	79 %	45
Grain	Viking melanoidynowy	0.3 kg (4.2%)	75 %	60
Grain	Weyermann Caramunich 3	0.2 kg (2.8%)	76 %	150
Grain	Caraaroma	0.2 kg (2.8%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Mittelfruh	25 g	60 min	4.9 %
Boil	Lublin (Lubelski)	40 g	60 min	4 %
Boil	Saaz (Czech Republic)	10 g	5 min	4 %