

dwugłowy kozioł pojeb

- Gravity **20.5 BLG**
- ABV **9 %**
- IBU **23**
- SRM **15.5**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **100 min**
- Evaporation rate **10 %/h**
- Boil size **35 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33 liter(s)**
- Total mash volume **44 liter(s)**

Steps

- Temp **64 C**, Time **35 min**
- Temp **68 C**, Time **35 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **33 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **35 min** at **64C**
- Keep mash **35 min** at **68C**
- Keep mash **35 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **35 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	6 kg (54.5%)	80 %	4
Grain	Strzegom Wiedeński	2 kg (18.2%)	79 %	10
Grain	Monachijski	2 kg (18.2%)	80 %	16
Grain	Melanoiden Malt	0.5 kg (4.5%)	80 %	39
Grain	Special B Malt	0.25 kg (2.3%)	65.2 %	315
Grain	Bestmalz Red X	0.25 kg (2.3%)	79 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	30 g	60 min	11 %
Boil	Lublin (Lubelski)	20 g	20 min	4 %