

- Gravity **13.7 BLG**
- ABV ---
- IBU **28**
- SRM **4.4**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **10 min** at **72C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (90.9%)	80 %	4
Grain	Weyermann - Carapils	0.5 kg (9.1%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	60 min	15.5 %
Boil	Saaz (Czech Republic)	20 g	10 min	4.5 %
Whirlpool	Saaz (Czech Republic)	10 g	---	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
czech pilsner 18	Lager	Dry	10 g	Gozdawa