Pils

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **42**
- SRM **3.5**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **23.2 liter(s)**
- Total mash volume **27.8 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **23.2 liter(s)** of strike water to **67.3C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **0 min** at **78C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.5 kg *(97%)*	80 %	4
Grain	Strzegom Wiedeński	0.14 kg *(3%)*	79 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	9.5 %
Boil	Marynka	15 g	30 min	9.5 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	0 min	4.5 %
Whirlpool	Lublin (Lubelski)	25 g	15 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-189	Lager	Dry	11.5 g	Fermentis