Pils

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **33**
- SRM **3.9**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **65 C**, Time **70 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg *(96.2%)*	81 %	4
Grain	Caramel Pale	0.2 kg *(3.8%)*	77 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	10 g	30 min	11 %
Boil	Iunga	40 g	15 min	11 %
Boil	Tomyski	100 g	0 min	2.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM30 Bohemska rapsodia	Lager	Liquid	250 ml	Fermentum Mobile