

Pils 12*

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **43**
- SRM **4.2**
- 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 **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25 liter(s)**

Steps

- Temp **50 C**, Time **0 min**
- Temp **54 C**, Time **10 min**
- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**
- Temp **100 C**, Time **80 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **53.8C**
- Add grains
- Keep mash **0 min** at **50C**
- Keep mash **10 min** at **54C**
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Keep mash **80 min** at **100C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (80%)	81 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (10%)	79 %	16
Grain	Briess - Carapils Malt	0.5 kg (10%)	74 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	70 min	10 %
Boil	Saaz (Czech Republic)	30 g	15 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Brewgo Lager	Lager	Dry	15 g	---