

## Pils 12.5 blg

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **45**
- SRM **4.9**
- 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 **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

### Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **17.1 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (70.2%)	82 %	4
Grain	Viking Vienna Malt	1.2 kg (21.1%)	79 %	7
Grain	Viking Munich Malt	0.5 kg (8.8%)	78 %	18

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Boil	Hallertau	20 g	30 min	4.5 %
Boil	Hallertau	15 g	10 min	4.5 %
Aroma (end of boil)	Hallertau	15 g	1 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	12 g	Fermentis Division of S.I.Lesaffre

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	10 g	Boil	10 min