# **German Pils**

- Gravity 11.4 BLG
- ABV 4.6 %
- IBU **46**
- SRM **3.4**
- 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 90 min
- Evaporation rate 10 %/h
- Boil size 26.4 liter(s)

### **Mash information**

- Mash efficiency 75 %
- Liquor-to-grist ratio 4 liter(s) / kg
- Mash size 18 liter(s)
- Total mash volume 22.5 liter(s)

## **Steps**

- Temp **64 C**, Time **40 min** Temp **72 C**, Time **15 min**
- Temp 76 C, Time 10 min

# Mash step by step

- Heat up 18 liter(s) of strike water to 69.5C
- Add grains
- Keep mash 40 min at 64C
- Keep mash 15 min at 72C
- Keep mash 10 min at 76C
- Sparge using 12.9 liter(s) of 76C water or to achieve 26.4 liter(s) of wort

# **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Pilzneński	4.5 kg <i>(100%)</i>	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertauer Tradition	20 g	50 min	5.2 %
Boil	Hallertauer Tradition	20 g	40 min	5.2 %
Boil	Hallertauer Tradition	15 g	30 min	5.2 %
Boil	Hallertauer Tradition	20 g	20 min	5.2 %
Boil	Tettnanger	20 g	10 min	3.8 %
Boil	Tettnanger	30 g	5 min	3.8 %
Whirlpool	Tettnanger	30 g	20 min	3.8 %

# **Yeasts**

Name	Туре	Form	Amount	Laboratory
2007 Pilsen Lager	Lager	Liquid	2000 ml	Wyeast

#### Notes

• 60 % woda destylowana

10 g CaSO4 Fermentacja 9 stopni C Nov 2, 2017, 4:16 PM