German Pils

- Gravity 11.2 BLG
- ABV 4.5 %
- IBU **32**
- SRM **3.4**
- Style German Pilsner (Pils)

Batch size

- Expected quantity of finished beer 34 liter(s)
- Trub loss 5 %
- Size with trub loss 35.7 liter(s)
- · Boil time 90 min
- Evaporation rate 15 %/h
- Boil size 47.9 liter(s)

Mash information

- Mash efficiency 75 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 22.8 liter(s)
- Total mash volume 30.4 liter(s)

Steps

- Temp 52 C, Time 5 min
 Temp 64 C, Time 25 min
 Temp 70 C, Time 30 min

- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up 22.8 liter(s) of strike water to 57.3C
- Add grains
- Keep mash 5 min at 52C
- · Keep mash 25 min at 64C
- Keep mash 30 min at 70C
- Keep mash 1 min at 78C
- Sparge using 32.7 liter(s) of 76C water or to achieve 47.9 liter(s) of wort

Fermentables

Туре	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	7.6 kg <i>(100%)</i>	80 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	50 g	60 min	5.6 %
Boil	Tettnang	18 g	30 min	4.7 %
Boil	Lublin (Lubelski)	12 g	30 min	3.8 %
Aroma (end of boil)	Hallertau Mittelfruh	30 g	15 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	30 g	5 min	4.7 %

Yeasts

Name	Туре	Form	Amount	Laboratory
WLP830 - German Lager Yeast	Lager	Liquid	3000 ml	White Labs

Notes

· Gęstość początkowa 11 Brix