Pils

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **47**
- SRM **4.8**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **3 %**
- Size with trub loss **25.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **30 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20.5 liter(s)**

Steps

- Temp **55 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **61.5C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **30 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg *(72.1%)*	82 %	4
Grain	Pszeniczny	0.2 kg *(3.6%)*	85 %	4
Grain	Strzegom Monachijski typ I	0.8 kg *(14.4%)*	79 %	16
Grain	Acid Malt	0.2 kg *(3.6%)*	58.7 %	6
Grain	Karmelowy Jasny 30EBC	0.35 kg *(6.3%)*	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	30 g	90 min	11.2 %
Aroma (end of boil)	Magnat	20 g	10 min	11.2 %
Aroma (end of boil)	Oktawia	30 g	10 min	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory

Lalbrew Diamond Lager Yeast	Lager	Slant	500 ml	#87

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlflock	0.5 g	Boil	10 min