

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **57**
- SRM **3.2**
- 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 **90 min**
- Evaporation rate **25 %/h**
- Boil size **31.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **14 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **21.6 liter(s)** of **76C** water or to achieve **31.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński Soufflet	4 kg (100%)	81 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Blanc	20 g	60 min	11 %
Boil	Hallertau Blanc	20 g	20 min	11 %
Boil	Hallertau Blanc	20 g	10 min	11 %
Boil	Hallertau Blanc	20 g	5 min	11 %
Aroma (end of boil)	Hallertau Blanc	20 g	0 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand Diamond Lager	Lager	Dry	11 g	---