

## pils II

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **35**
- SRM **4**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **56 liter(s)**
- Trub loss **5 %**
- Size with trub loss **58.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **73 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **43.8 liter(s)**
- Total mash volume **56.3 liter(s)**

### Steps

- Temp **52 C**, Time **5 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **43.8 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **20 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **41.7 liter(s)** of **76C** water or to achieve **73 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	11 kg (88%)	80 %	4
Grain	Monachijski	1.5 kg (12%)	80 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	magnum	65 g	60 min	11.5 %
Boil	Hellertau Hersbrucker	50 g	10 min	4.3 %
Boil	Hellertau Hersbrucker	50 g	5 min	4.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Slant	300 ml	Fermentis Division of S.I.Lesaffre