

## pils 12 BLG

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **38**
- SRM **4.3**
- 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 **70 min**
- Evaporation rate **15 %/h**
- Boil size **28.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Steps

- Temp **53 C**, Time **10 min**
- Temp **63 C**, Time **35 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **35 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.5 kg (90%)	80 %	4
Grain	Strzegom Monachijski typ II	0.5 kg (10%)	79 %	22

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	40 min	8.8 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	5 min	4 %
Whirlpool	Tradition	20 g	10 min	5.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	22.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc t	1.1 g	Boil	10 min