

## XII warka Pils

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **28**
- SRM **3.9**
- Style **Bohemian Pilsener**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **22.1 liter(s)**

### Mash information

- Mash efficiency **86.5 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.3 liter(s)**
- Total mash volume **15 liter(s)**

### Steps

- Temp **50 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **11.3 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **22.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (93.3%)	80 %	4
Grain	Strzegom Monachijski typ I	0.25 kg (6.7%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	10 g	120 min	4 %
Boil	Saaz (Czech Republic)	25 g	90 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	15 g	30 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	200 ml	Fermentis