

## z tego co było

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- Gravity **10 BLG**
- ABV **4 %**
- IBU **50**
- SRM **5.5**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **46 liter(s)**
- Trub loss **5 %**
- Size with trub loss **48.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **58.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.05 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **39.9 liter(s)**

### Steps

- Temp **50 C**, Time **15 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **90 min**

### Mash step by step

- Heat up **30 liter(s)** of strike water to **54.9C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **40 min** at **62C**
- Keep mash **90 min** at **72C**
- Sparge using **38 liter(s)** of **76C** water or to achieve **58.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	5 kg (50.8%)	74.5 %	16
Grain	Strzegom Pilzneński	4.84 kg (49.2%)	74.5 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	57.5 g	60 min	11.7 %
Boil	Izabella	30 g	30 min	7.6 %
Aroma (end of boil)	Styrian Dragon	30 g	15 min	7.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale w-34/70	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	6.52 g	Boil	20 min