

## Bieg spokojny

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- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **21**
- SRM **3.4**
- Style **Belgian Pale Ale**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **23.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

### Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12.6 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilzneński	3.3 kg (78.6%)	81 %	3.5
Grain	Słód pszeniczny	0.7 kg (16.7%)	82 %	5
Grain	Słód Carapils	0.2 kg (4.8%)	75 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Aroma (end of boil)	Oktawia	21 g	0 min	7.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
3787 Trappist Style High Gravity	Ale	Liquid	1200 ml	Wyeast