

## Kaczy sezon

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **36**
- SRM **9.5**
- Style **Saison**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **65 min**
- Evaporation rate **14 %/h**
- Boil size **20 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **11.3 liter(s)**
- Total mash volume **14.8 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **11.3 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **20 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pilzneński	2.03 kg (57.4%)	80 %	3.8
Grain	Słód wiedeński	0.6 kg (17%)	79 %	6.2
Grain	Słód pszeniczny	0.52 kg (14.9%)	82 %	4.7
Grain	Słód Carahell	0.15 kg (4.3%)	74 %	25
Grain	Słód Caraaroma	0.15 kg (4.3%)	74 %	400
Grain	Słód zakwaszający	0.08 kg (2.1%)	--- %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka (PL)	22.5 g	60 min	8.8 %
Boil	Żatecki	15 g	20 min	4 %
Boil	Żatecki	7.5 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM21 Odkrycie sezonu	Ale	Slant	750 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	Curacao	15 g	Boil	20 min
Other	Glukoza	225 g	Boil	5 min