

# Chłoporobotnik

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **41**
- SRM **6.3**
- Style **Saison**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **28.5 liter(s)**

## Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **28.4 liter(s)**

## Steps

- Temp **64 C**, Time **90 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **22.1 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	4 kg (58.8%)	81 %	4
Grain	Pszeniczny	1 kg (14.7%)	85 %	4
Grain	Strzegom Wiedeński	1 kg (14.7%)	79 %	10
Grain	Caramunich® typ I	0.3 kg (4.4%)	73 %	90
Sugar	glukoza	0.5 kg (7.4%)	100 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Golding	50 g	60 min	3.3 %
Boil	Citra	50 g	5 min	12 %
Aroma (end of boil)	Citra	25 g	15 min	13.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M29 French Saison	Ale	Dry	11 g	Mangrove Jack's

starter 1,2l wody + 140g ekstrakt jasny 40-50h.

## Extras

Type	Name	Amount	Use for	Time
Spice	skórka pomarańczy	15 g	Boil	7 min
Spice	skórka cytryny	10 g	Boil	7 min