

# Ciemne letnie

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **28**
- SRM **24.9**
- Style **Mild**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (66.7%)	81 %	4
Grain	Fawcett - Brown	0.6 kg (13.3%)	72 %	180
Grain	Pszeniczny	0.5 kg (11.1%)	85 %	4
Grain	Fawcett - Pale Chocolate	0.2 kg (4.4%)	71 %	600
Grain	Jęczmień palony	0.2 kg (4.4%)	55 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8.6 %
Boil	Fuggles	30 g	30 min	4.5 %
Whirlpool	Fuggles	30 g	30 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	Płatki dębowe	20 g	Secondary	30 day(s)

## Notes

- Temp fermentacji 17C otoczenia  
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