

# Ciemne

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **59**
- SRM **30.1**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.6 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **30.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	2 kg (35.7%)	85 %	22
Grain	Strzegom RedActive	3 kg (53.6%)	85 %	35
Grain	Jęczmień palony	0.5 kg (8.9%)	60 %	985
Grain	Strzegom Karmel 600	0.1 kg (1.8%)	60 %	601

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	60 min	16.3 %
Boil	Columbus/Tomahawk/Zeus	20 g	30 min	16.3 %
Boil	Columbus/Tomahawk/Zeus	5 g	5 min	16.3 %
Dry Hop	Citra	30 g	4 day(s)	12.5 %
Dry Hop	Chinook	30 g	4 day(s)	11.8 %
Dry Hop	Amarillo	30 g	4 day(s)	7.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Gozdawa Belgian Fruit Spicy Ale Yeast	Ale	Dry	10 g	Gozdawa
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