

# Ciemny Miś

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **31**
- SRM **15.5**

## Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **3 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **30.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **27.2 liter(s)**
- Total mash volume **34 liter(s)**

## Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **27.2 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **30.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	5 kg (73.5%)	80 %	16
Grain	Pale Malt (2 Row) US	1.5 kg (22.1%)	79 %	4
Grain	Strzegom Karmel 600	0.3 kg (4.4%)	68 %	601

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Lublin (Lubelski)	30 g	15 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa - Porter	Lager	Dry	11 g	Gozdawa