

# Mroźny Koźlak

- Gravity **23.1 BLG**
- ABV **10.5 %**
- IBU **30**
- SRM **24.1**
- Style **Eisbock**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **40 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **99 C**, Time **10 min**
- Temp **70 C**, Time **20 min**
- Temp **99 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **30 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **20 min** at **70C**
- Keep mash **1 min** at **78C**
- Keep mash **10 min** at **99C**
- Keep mash **10 min** at **99C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2 kg (20%)	79 %	10
Grain	Munich Malt	7 kg (70%)	80 %	18
Grain	Weyermann Caramunich 3	0.8 kg (8%)	76 %	150
Grain	Carafa II Special	0.2 kg (2%)	70 %	812

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	40 g	70 min	10.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP830 - German Lager Yeast	Lager	Slant	450 ml	White Labs