

# TO MIAŁ BYĆ ZWYKŁY BITTER

- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **29**
- SRM **8.6**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (77.8%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.5 kg (11.1%)	75 %	30
Grain	Strzegom Karmel 150	0.5 kg (11.1%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	60 min	4 %
Boil	Fuggles	30 g	60 min	4.5 %
Boil	Fuggles	20 g	30 min	4.5 %
Dry Hop	Mosaic	100 g	3 day(s)	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Liquid	10 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Fining	Whirlfloc	1 g	Boil	5 min
Water Agent	gips piwowarski	5 g	Boil	5 min
Other	WITAMINA C	100 g	Bottling	---
PRZECIWUTLENIACZ + LEKKIE ZAKWASZENIE				