

# Marcowa IPA

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **21**
- SRM **4.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **96.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **52.8 liter(s)**
- Total mash volume **73.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **52.8 liter(s)** of strike water to **77.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **65.4 liter(s)** of **76C** water or to achieve **96.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	10 kg (44.2%)	80 %	4
Grain	Weyermann - Carapils	0.6 kg (2.7%)	78 %	4
Grain	Pszeniczny	1 kg (4.4%)	85 %	4
Grain	Płatki owsiane	1 kg (4.4%)	85 %	3
Grain	Weyermann - Acidulated Malt	0.5 kg (2.2%)	80 %	6
Grain	Weyermann - Pale Ale Malt	8 kg (35.4%)	85 %	7
Adjunct	Rye, Flaked	0.5 kg (2.2%)	78.3 %	4
Adjunct	Płatki pszeniczne	0.5 kg (2.2%)	60 %	3
Grain	Płatki owsiane	0.5 kg (2.2%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	40 min	10 %
Boil	Marynka	30 g	30 min	10 %
Boil	Marynka	30 g	25 min	10 %

Whirlpool	Centennial	60 g	10 min	10.5 %
Whirlpool	Centennial	30 g	5 min	10.5 %
Aroma (end of boil)	Amarillo	60 g	1 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	60 g	Fermentis