

# Bitter Trzy Baryłki

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **24**
- SRM **13.9**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **45 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.2 liter(s) / kg**
- Mash size **32 liter(s)**
- Total mash volume **39.6 liter(s)**

## Steps

- Temp **66 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **32 liter(s)** of strike water to **71.5C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **45 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.5 kg (45.9%)	80 %	7
Grain	Strzegom Monachijski typ II	2.714 kg (35.6%)	79 %	16
Grain	Strzegom Karmel 150	0.25 kg (3.3%)	75 %	150
Grain	Pszeniczny	0.5 kg (6.6%)	85 %	4
Grain	Biscuit Malt	0.5 kg (6.6%)	79 %	45
Grain	Strzegom Czekoladowy ciemny	0.16 kg (2.1%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	9.4 %
Boil	Marynka	30 g	20 min	9.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis