

# Bitter Trzy Baryłki

- Gravity **11 BLG**
- ABV ---
- 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  |