

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 |