

Bitter V.1

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **32**
- SRM **9.7**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **12.7 liter(s)**

Steps

- Temp **65 C**, Time **60 min**

Mash step by step

- Heat up **10.2 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 0.5 kg (19.7%) | 79 % | 6 |
| Grain | Karmelowy Jasny 30EBC | 0.3 kg (11.8%) | 75 % | 30 |
| Grain | Strzegom Monachijski typ II | 0.2 kg (7.9%) | 79 % | 22 |
| Grain | Strzegom Pilzneński | 1.5 kg (59.1%) | 80 % | 4 |
| Grain | Carafa III | 0.04 kg (1.6%) | 70 % | 1034 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Oktawia | 15 g | 60 min | 7.8 % |
| Boil | Oktawia | 15 g | 10 min | 7.8 % |
| Aroma (end of boil) | Oktawia | 20 g | 0 min | 7.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 7 g | Safale |