

HANGOVERLESS

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **48**
- SRM **3.5**
- Style **Fruit Beer**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **68 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **26 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|---------------|--------|-----|
| Grain | Słód pszeniczny Bestmalz | 4 kg (61.5%) | 82 % | 5 |
| Grain | Zakwaszający | 2 kg (30.8%) | 75 % | 5 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (7.7%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Warrior | 40 g | 60 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 12.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|-----------|----------|
| Flavor | Owoce pulpa | 500 g | Secondary | 7 day(s) |