

Jotnar

- Gravity **11 BLG**
- ABV ---
- IBU **40**
- SRM **13.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **14.8 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **11.5 liter(s)** of strike water to **66.7C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **76C**
- Sparge using **5.9 liter(s)** of **76C** water or to achieve **14.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|--------------|-------|------|
| Grain | Strzegom Pale Ale | 2.5 kg (98%) | 79 % | 6 |
| Grain | Strzegom pszenica prażona | 0.05 kg (2%) | 70 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 20 g | 60 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------------|--------|---------|--------|
| Flavor | młode pędy sosny | 75 g | Boil | 30 min |
| Flavor | młode pędy sosny | 25 g | Boil | 0 min |