

# Zzyta apa

---

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **38**
- SRM **4.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

- Temp **53 C**, Time **5 min**
- Temp **69 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **5 min** at **53C**
- Keep mash **60 min** at **69C**
- Keep mash **20 min** at **72C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name               | Amount         | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Żytni              | 2 kg (41.7%)   | 85 %  | 8   |
| Grain | Strzegom Wiedeński | 1 kg (20.8%)   | 79 %  | 10  |
| Grain | Pilzneński         | 1.8 kg (37.5%) | 81 %  | 4   |

## Hops

| Use for   | Name                  | Amount | Time   | Alpha acid |
|-----------|-----------------------|--------|--------|------------|
| Boil      | Nelson Sauvín         | 10 g   | 10 min | 11 %       |
| Boil      | Moutere               | 10 g   | 10 min | 14.5 %     |
| Whirlpool | Mix                   | 80 g   | 10 min | 1 %        |
| Boil      | Marynka               | 20 g   | 60 min | 10 %       |
| Boil      | Saaz (Czech Republic) | 15 g   | 10 min | 4.5 %      |