

# Polskie ale JA ŁOWCA

---

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **30**
- SRM **3.8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **11.5 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **17.7 liter(s)** of wort

## Fermentables

| Type  | Name               | Amount        | Yield | EBC |
|-------|--------------------|---------------|-------|-----|
| Grain | Pilzneński         | 3 kg (90.9%)  | 81 %  | 4   |
| Grain | Strzegom Wiedeński | 0.3 kg (9.1%) | 79 %  | 10  |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Marynka  | 15 g   | 60 min | 10 %       |
| Boil    | pałacowy | 20 g   | 10 min | 5 %        |
| Boil    | pałacowy | 60 g   | 0 min  | 5 %        |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type  | Name     | Amount | Use for | Time   |
|-------|----------|--------|---------|--------|
| Spice | jałowiec | 50 g   | Boil    | 10 min |