

# polska

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- Gravity **10.2 BLG**
- ABV ---
- IBU **32**
- SRM **4.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.4 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **14.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 4 kg (82.3%)   | 80 %  | 4   |
| Grain | Strzegom Wiedeński  | 0.5 kg (10.3%) | 79 %  | 10  |
| Grain | Strzegom Karmel 30  | 0.25 kg (5.1%) | 75 %  | 30  |
| Grain | Karmelowy 50        | 0.11 kg (2.3%) | 75 %  | 59  |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 30 g   | 60 min | 7.2 %      |
| Boil    | Lublin (Lubelski) | 20 g   | 20 min | 3.7 %      |
| Boil    | Sybilla           | 20 g   | 10 min | 4.5 %      |
| Boil    | Sybilla           | 15 g   | 5 min  | 4.5 %      |
| Boil    | Lublin (Lubelski) | 15 g   | 5 min  | 3.7 %      |
| Boil    | Sybilla           | 15 g   | 0 min  | 4.5 %      |
| Boil    | Lublin (Lubelski) | 15 g   | 0 min  | 3.7 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 10 g   | Safale     |