

# polska

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- Gravity **11 BLG**
- ABV ---
- IBU **33**
- SRM **4.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

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

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 4 kg (83.2%)   | 80 %  | 4   |
| Grain | Strzegom Wiedeński  | 0.5 kg (10.4%) | 79 %  | 10  |
| Grain | Strzegom Karmel 30  | 0.2 kg (4.2%)  | 75 %  | 30  |
| Grain | Karmelowy 50        | 0.11 kg (2.3%) | 75 %  | 59  |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | lunga             | 6 g    | 60 min | 11 %       |
| Boil    | Marynka           | 20 g   | 60 min | 7.2 %      |
| Boil    | Lublin (Lubelski) | 20 g   | 20 min | 2.6 %      |
| Boil    | Sybilla           | 20 g   | 10 min | 6.1 %      |
| Boil    | Sybilla           | 15 g   | 5 min  | 6.1 %      |
| Boil    | Lublin (Lubelski) | 15 g   | 5 min  | 2.6 %      |
| Boil    | Sybilla           | 15 g   | 0 min  | 6.1 %      |
| Boil    | Lublin (Lubelski) | 15 g   | 0 min  | 2.6 %      |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|             |     |     |      |        |
|-------------|-----|-----|------|--------|
| Safale S-04 | Ale | Dry | 10 g | Safale |
|-------------|-----|-----|------|--------|