

# kozlak

---

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **20**
- SRM **3.6**
- Style **American IPA**

## 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.3 liter(s)**
- Total mash volume **19 liter(s)**

## Steps

- Temp **63 C**, Time **10 min**
- Temp **72 C**, Time **120 min**

## Mash step by step

- Heat up **14.3 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **10 min** at **63C**
- Keep mash **120 min** at **72C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount          | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (42.1%)    | 80 %  | 5   |
| Grain | Pszeniczny           | 1.25 kg (26.3%) | 85 %  | 4   |
| Grain | Płatki pszeniczne    | 0.5 kg (10.5%)  | 60 %  | 3   |
| Grain | Płatki owsiane       | 1 kg (21.1%)    | 60 %  | 3   |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 20 g   | 30 min | 10 %       |
| Boil    | Marynka | 10 g   | 5 min  | 10 %       |