

# Czerwony Topór

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **21**
- SRM **15.1**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                             | Amount        | Yield | EBC |
|-------|----------------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt             | 4 kg (60.6%)  | 80 %  | 5   |
| Grain | Strzegom Monachijski typ II      | 1 kg (15.2%)  | 79 %  | 22  |
| Grain | Caraamber                        | 1 kg (15.2%)  | 75 %  | 59  |
| Grain | Słód Caramunich Typ II Weyermann | 0.5 kg (7.6%) | 73 %  | 120 |
| Grain | Jęczmień palony                  | 0.1 kg (1.5%) | 55 %  | 985 |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Marynka    | 20 g   | 40 min | 10 %       |
| Boil    | Challenger | 15 g   | 20 min | 7 %        |

## Yeasts

| Name               | Type | Form   | Amount | Laboratory  |
|--------------------|------|--------|--------|-------------|
| Wyeast - Irish Ale | Ale  | Liquid | 35 ml  | Wyeast Labs |

## Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 6 g    | Boil    | 15 min |

### Notes

- Jęczmień palony od 0,05 do 0,15 kg - dla IBU od 11 - 17  
*Sep 30, 2018, 2:05 PM*