

# WILD HOP PALE ALE

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **35**
- SRM **3.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## 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 **24.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.2 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **13.2 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **24.9 liter(s)** of wort

## Fermentables

| Type  | Name         | Amount        | Yield | EBC |
|-------|--------------|---------------|-------|-----|
| Grain | Pale Ale     | 3 kg (71.4%)  | 80 %  | 5   |
| Grain | Pszeniczny   | 1 kg (23.8%)  | 85 %  | 4   |
| Sugar | Cukier biały | 0.2 kg (4.8%) | 100 % | 2   |

## Hops

| Use for | Name         | Amount | Time   | Alpha acid |
|---------|--------------|--------|--------|------------|
| Boil    | Marynka      | 30 g   | 60 min | 6.5 %      |
| Boil    | Marynka      | 20 g   | 25 min | 6.5 %      |
| Boil    | Dziki chmiel | 20 g   | 10 min | 3 %        |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew S-33 | Ale  | Dry  | 11.5 g | Safbrew    |

## Extras

| Type        | Name      | Amount | Use for | Time   |
|-------------|-----------|--------|---------|--------|
| Water Agent | Sól epsom | 2 g    | Boil    | 60 min |