

# Grillers jasny

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **29**
- SRM **5.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt       | 5 kg (76.9%)   | 80 %  | 5   |
| Grain | Strzegom Monachijski typ I | 1 kg (15.4%)   | 79 %  | 16  |
| Grain | Caramunich® typ I          | 0.25 kg (3.8%) | 73 %  | 80  |
| Grain | Barley, Flaked             | 0.25 kg (3.8%) | 70 %  | 4   |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Aroma (end of boil) | Citra                  | 15 g   | 0 min  | 12 %       |
| Boil                | Amarillo               | 14 g   | 0 min  | 9.5 %      |
| Boil                | Chinook                | 16.4 g | 5 min  | 13 %       |
| Boil                | Aurora                 | 13.5 g | 15 min | 8.5 %      |
| Boil                | Columbus/Tomahawk/Zeus | 15.7 g | 60 min | 15.5 %     |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type   | Name              | Amount | Use for | Time  |
|--------|-------------------|--------|---------|-------|
| Flavor | Skórka pomarańczy | 27.6 g | Boil    | 0 min |