

## new hope

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- Gravity **16.1 BLG**
- ABV ---
- IBU **78**
- SRM **9**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **66 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.4 liter(s)**
- Total mash volume **28.8 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **22.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Keep mash **0 min** at **78C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount         | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 6 kg (93.8%)   | 85 %  | 7   |
| Grain | Strzegom Karmel 30        | 0.25 kg (3.9%) | 75 %  | 30  |
| Grain | Strzegom Bursztynowy      | 0.15 kg (2.3%) | 70 %  | 49  |

### Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil      | Zeus     | 30 g   | 60 min   | 15.5 %     |
| Boil      | Amarillo | 20 g   | 30 min   | 9.5 %      |
| Boil      | Citra    | 15 g   | 20 min   | 12 %       |
| Boil      | Cascade  | 15 g   | 5 min    | 6 %        |
| Whirlpool | Amarillo | 10 g   | 0 min    | 9.5 %      |
| Whirlpool | Citra    | 15 g   | 0 min    | 12 %       |
| Whirlpool | Cascade  | 15 g   | 0 min    | 6 %        |
| Dry Hop   | Amarillo | 60 g   | 7 day(s) | 9.5 %      |
| Dry Hop   | Citra    | 30 g   | 7 day(s) | 12 %       |

## Yeasts

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