

# English Hop Spell

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **41**
- SRM **11.3**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **39.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **23.6 liter(s)** of **76C** water or to achieve **39.6 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale Zero | 5 kg (62.5%) | 80 %  | 5   |
| Grain | Monachijski          | 2 kg (25%)   | 80 %  | 16  |
| Grain | Strzegom Karmel 150  | 1 kg (12.5%) | 75 %  | 150 |

## Hops

| Use for | Name      | Amount | Time     | Alpha acid |
|---------|-----------|--------|----------|------------|
| Boil    | Pioneer   | 50 g   | 25 min   | 9.5 %      |
| Boil    | Endeavour | 50 g   | 25 min   | 7.5 %      |
| Dry Hop | Jetser@   | 50 g   | 7 day(s) | 6.9 %      |
| Dry Hop | Archer@   | 50 g   | 7 day(s) | 4.3 %      |

## Yeasts

| Name                     | Type | Form | Amount | Laboratory |
|--------------------------|------|------|--------|------------|
| Bulldog B1 Universal Ale | Ale  | Dry  | 10 g   | Bulldog    |