

# Bitter

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- Gravity **12.1 BLG**
- ABV ---
- IBU **33**
- SRM **10.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.5 liter(s)**
- Total mash volume **12.2 liter(s)**

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Briess - Pale Ale Malt      | 2.1 kg (77.8%) | 82 %  | 4   |
| Grain | Amber Malt                  | 0.2 kg (7.4%)  | 80 %  | 43  |
| Grain | Caramel/Crystal Malt - 120L | 0.4 kg (14.8%) | 80 %  | 120 |

## Hops

| Use for             | Name    | Amount | Time     | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil                | Fuggles | 20 g   | 35 min   | 4.76 %     |
| Aroma (end of boil) | Fuggles | 25 g   | 30 min   | 4.76 %     |
| Dry Hop             | Fuggles | 50 g   | 5 day(s) | 4.76 %     |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 7 g    | Safale     |

## Notes

- 40g cukru do nagazowania  
*Mar 5, 2017, 2:47 PM*