# Brut'al

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **6**
- SRM **3.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7.9 liter(s)**
- Total mash volume **10.1 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **7.9 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **7.6 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

## Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---|---|---|---|
| Grain | Pilzneński IREKS | 1.75 kg *(72.9%)* | 81 % | 4 |
| Grain | Płatki ryżowe | 0.25 kg *(10.4%)* | 78.3 % | 2 |
| Grain | Płatki owsiane | 0.25 kg *(10.4%)* | 85 % | 3 |
| Sugar | Cukier biały | 0.15 kg *(6.3%)* | 80 % | 2 |

## Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|---|---|---|---|
| Aroma (end of boil) | Mosaic | 15 g | 5 min | 10 % |
| Aroma (end of boil) | Citra | 15 g | 0 min | 10 % |
| Dry Hop | Citra | 35 g | 3 day(s) | 13 % |
| Dry Hop | Galaxy | 45 g | 3 day(s) | 15 % |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|---|---|---|---|
| Us-05 | Ale | Dry | 5.75 g | Fermentis |

## Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|---|---|---|---|---|
| Other | Glukoamylaza | 2.5 g | Primary | 20 day(s) |