

# Instant Foods

## ADM Lecithin

Formulators of instant foods face a unique paradox: incorporating difficult-to-disperse materials (proteins, fibres, vitamins and minerals) into a product that can be readily dissolved in cold water, milk or other such aqueous solutions.

High-fat powders are difficult to wet and disperse because they are hydrophobic (try to repel water). High-protein ingredients are hydrophilic (attracted to water) and can hydrate too quickly, forming clumps that do not hydrate internally. **These instantising problems can be solved with lecithin from ADM.**

### Instant food applications

- Beverage powders
- Meal replacement shakes
- Soups
- Gravy mixes
- Powdered dairy products



*The instantising effect of a lecithinated whole milk replacer in an instant beverage mix.*



*A full-fat whole milk replacer lecithinated with Ultralec P.*

### Instantising

Instantising with lecithin is usually accomplished by spray-coating the lecithin onto a powder's surface. ADM offers a number of liquid lecithins for this purpose, in particular Adlec™ E and the Beakin™ series of complexed lecithins.

However, ADM also produces Ultralec® ultrafiltered, deoiled lecithin. Ultralec is the product of an exclusive ultrafiltration process that removes triglycerides from lecithin, leaving it dry and easy-to-mix. Its outstanding quality and purity has no off-flavours or odours, so it maintains the integrity of instant food products. Ultralec is available in powdered, granular or fine granular forms.

### Recommended ADM lecithins

**Adlec™ and Yelkin®:** A series of standardised lecithins that provide moisture retention and emulsification in high-viscosity applications.

**Ultralec®:** ADM's exclusive, ultrafiltered, deoiled lecithin is used in hydrophilic instantising applications, and it provides excellent emulsification properties in reduced-fat and flavour-sensitive applications.

**Beakin™:** A series of complexed lecithin products with low viscosity, sprayable at ambient temperature, and used in lipophilic instantising applications.

**Adlec™ E:** An enzymatically hydrolysed, water-dispersible lecithin.

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# ADM's range of lecithin grades

Product	Typical Analyses		
<b>STANDARD LECITHINS</b>			
<b>Adlec</b>	Al, % 62 min. H <sub>2</sub> O, % 0.8 max. HI, % 0.2 max.	Colour: 17 max. AV: 30 max. Form: Transparent fluid	Viscosity: 12.5 max. (Pa.S, 25°C)
<b>Yelkin T</b>	Al, % 65 min. H <sub>2</sub> O, % 1.0 max. HI, % 0.05 max.	Colour: 17 max. AV: 30 max. Form: Opaque plastic	Viscosity: N/A
<b>Yelkin TS</b>	Al, % 62 min. H <sub>2</sub> O, % 1.0 max. HI, % 0.05 max.	Colour: 17 max. AV: 30 max. Form: Translucent fluid	Viscosity: 10 max. (Pa.S, 25°C)
<b>Yelkin DS</b>	Al, % 62 min. H <sub>2</sub> O, % 1.0 max. HI, % 0.05 max.	Colour: 12 max. AV: 30 max. Form: Translucent fluid	Viscosity: 10 max. (Pa.S, 25°C)
<b>PURIFIED LECITHIN</b>			
<b>Yelkin Gold</b>	Al, % 62 min. H <sub>2</sub> O, % 0.50 max. HI, % 0.05 max.	Colour: 14 max. AV: 30 max. Form: Transparent fluid	Viscosity: 10 max. (Pa.S, 25°C)
<b>ULTRAFILTERED DEOILED LECITHINS</b>			
<b>Ultralec P</b>	Al, % 97 min. H <sub>2</sub> O, % 1.0 max.	Colour: Light-gold Form: Powder	Viscosity: N/A
<b>Ultralec F</b>	Al, % 97 min. H <sub>2</sub> O, % 1.0 max.	Colour: Light-gold Form: Fine granules	Viscosity: N/A
<b>Ultralec G</b>	Al, % 97 min. H <sub>2</sub> O, % 1.0 max.	Colour: Light-gold Form: Granules	Viscosity: N/A
<b>COMPLEXED LECITHINS</b>			
<b>Beakin LV1</b>	Al, % 50 min. H <sub>2</sub> O, % 0.80 max. HI, % 0.05 max.	Colour: 14 max. AV: 25 max. Form: Translucent fluid	Viscosity: 1.5 max. (Pa.S, 25°C)
<b>Beakin LV3</b>	Al, % 32 min. H <sub>2</sub> O, % 0.80 max. HI, % 0.05 max.	Colour: 14 max. AV: 25 max. Form: Translucent fluid	Viscosity: 0.5 max. (Pa.S, 25°C)
<b>Beakin LV6</b>	Al, % 60 min. H <sub>2</sub> O, % 0.80 max. HI, % 0.05 max.	Colour: 14 max. AV: 30 max. Form: Translucent fluid	Viscosity: 3.5 max. (Pa.S, 25°C)
<b>MODIFIED LECITHIN</b>			
<b>Adlec E</b>	Al, % 56 min. H <sub>2</sub> O, % 1.0 max. HI, % 0.2 max.	Colour: 17 max. AV: 45 max. Form: Transparent fluid	Viscosity: 12-15 (Pa.S, 25°C)