

## Application Sheet

Nylonpoly® is a range of Nylon-12 powders with different sizes and surface treatments. Nylonpolys® are also available with encapsulated actives such as Vitamin E and Q10. Nylonpolys® are spherical particles with a sponge-like structure and soft feel. These particles form elevations on the surface of emulsion when the emulsion is applied onto the skin. These elevations prevent airborne particles from attaching onto the surface giving the skin an anti-pollution shield.

Nylonpolys® are used as texturizing agents, dry binders and emulsion stabilizers. They also give a mattifying effect to emulsions and powder applications. The spherical shape and sponge-like structure give a soft feel and enhanced spreadability. Nylonpolys® can stabilize emulsions by hindering Brownian movement. This is due to the particle size and density of Nylonpolys®.

Nylonpolys® can also be used as a fragrance or active delivery system as they can absorb liquids 25% of their own weight. The fragrance will get slowly released as it evaporates from the Nylonpolys® due to the heat of the skin, and actives get released depending on their characteristics in relation to those of the skin and the Nylonpoly® sphere. Fragrance and active loaded Nylonpolys® are available as custom tailored projects.

Trade Name	INCI Name
Nylonpoly® WL 10 AF	Nylon-12 (and) Hydrogenated Polydecene
Nylonpoly® WL 10 DF	Nylon-12 (and) Hydrogenated Polyisobutene (and) Dimethicone
Nylonpoly® WL 10 FLWJ	Nylon-12 (and) Soy Amino Acids (and) Jasminum Officinale (Jasmine) Flower Wax
Nylonpoly® WL 10 HB	Nylon-12 (and) Dimethicone
Nylonpoly® WL 10 LL	Nylon-12 (and) Lauroyl Lysine
Nylonpoly® WL 10 LVS	Nylon-12 (and) Zea Mays (Corn) Starch (and) Hydrogenated Lecithin (and) Hydrogenated Meadowfoam Seed Oil (and) Squalane
Nylonpoly® WL 10 MSL	Nylon-12 (and) Sorbitan Stearate (and) Glycoproteins (and) Isododecane
Nylonpoly® WL 10 PUR	Nylon-12
Nylonpoly® WL 10 Q10	Nylon-12 (and) Ubiquinone
Nylonpoly® WL 10 SIL	Nylon-12 (and) Methicone
Nylonpoly® WL 10 TZ	Nylon-12 (and) Sodium C8-16 Isoalkylsuccinyl Soy Sulfonate (and) Dimethicone (and) Trimethylsiloxysilicate
Nylonpoly® WL 10 Vit E	Nylon-12 (and) Tocopherol
Nylonpoly® WL 10 ZP	Nylon-12 (and) Corn Starch Modified (and) Polyquaternium-10 (and) Phenoxyethanol (and) Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben (and) Isobutylparaben

These Nylonpoly® products are 10 micron sized (WL 10), but they are also available in 6 micron size (WL 6). Information on the surface treatments is available on our separate surface treatment guide. In addition to standard sizes, surface treatments and active encapsulations, Nylonpolys® can be custom tailored according to customer requests.

### Benefits

- improves feel and spreadability
- emulsion stabilizer
- mattifying
- evens colour pay off on powder applications
- allows excellent colour development when used with pigments
- enhances pressability of powder applications
- anti-pollution shield

### Properties

- produced with a catalyst free method without any animal origin raw materials unlike many other Nylon-12 powders
- particle size 6 or 10 microns
- narrow particle size distribution
- spherical, sponge-like structure
- white when dry, transparent when wet
- synthetic
- inert



## Application Areas

### Skin Care

Nylonpolys® can be used in skin care emulsions as texturizing and mattifying agents. They can also be used as emulsion stabilizers. Depending on the size and surface treatment, different sensorial perceptions can be achieved. Bigger particles feel drier and more powdery whereas the smaller ones have a more wet and fluid feel. Nylonpolys® are ideal anti-pollution agents, as they prevent dust and other airborne particles from attaching on the skin.

### Sun Care

Nylonpolys® are ideal for sun care emulsions as they can be used to reduce the tackiness and shininess of sunscreens. The bigger Nylonpolys® are recommended for this purpose. Nylonpolys® are compatible with both inorganic and organic UV-filters and they are completely photostable.

### Colour Care

Nylonpolys® can be used in both loose and pressed powder applications and in colour care emulsions such as foundations, primers and highlighters. Nylonpolys® bring many benefits to powder applications. They act as dry binders, and they improve pressability preventing cracking because of their sponge-like structure, which entraps air. Nylonpolys® enhance application properties by acting as dry lubricant due to their spherical shape and they give a soft, mattifying application. In foundations and in other colour care emulsions, Nylonpolys® are used to give a mattifying effect and to enhance the texture and application properties of the emulsions.

## Formulating

Nylonpolys® are compatible with all binder systems and they mix easily with pigments and organic colours. Nylonpolys® allow low colour loading as they have low hiding power.

### Emulsions

When formulating emulsions with Nylonpolys®, the surface treatment of the Nylonpolys® should be considered. Untreated Nylonpolys® disperse easiest in oil phase, but they can be also dispersed in water phase or in the emulsion after emulsification. If added after the emulsification, more mixing is required.

Typical use level: 5-15%

### Powder Applications

Nylonpolys® should be added to the powder base before colour shading and the addition of binders.

Typical use level: 5-15%

Packaging: 25 kg sealed aluminium bag in cardboard box