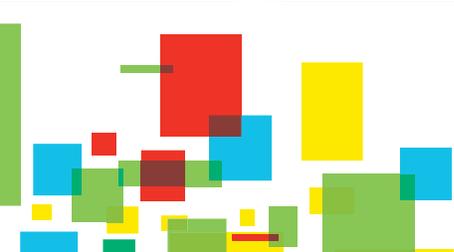


who can start the next color
trend in metallic effects?

you can.

working for you.



SunChemical[®]

a member of the DIC group



Color & Comfort



who can rely on the highest quality, global supplier for metallic effects?

you can.

finest pigments and powders

If you want to reach new levels of quality, you generally need to look deeper. At Sun Chemical, we pay attention to detail, take pride in innovation and have a deep sense of responsibility to the environment. At the same time, we never lose sight of our primary goal: supplying our customers with the best metallic pigments in the world.

Beste Zutaten

Wer in neue Qualitätsdimensionen vordringen will, muss näher an die Dinge herangehen. Wir von Sun Chemical arbeiten mit Liebe zum Detail, Freude an der Innovation und haben ein starkes Verantwortungsgefühl der Umwelt gegenüber. Dabei verlieren wir nie unser oberstes Ziel aus den Augen: unseren Kunden die besten Metallpigmente der Welt zu liefern.

brilliant results – uncompromised details

Brilliant results are usually the sum of perfect details. Since 1910, Benda-Lutz has been the brand synonymous with the highest quality ingredients for coatings, powder coatings, autoclaved aerated concrete, plastics and printing inks.

Glanzvolle Ergebnisse – kompromisslose Details

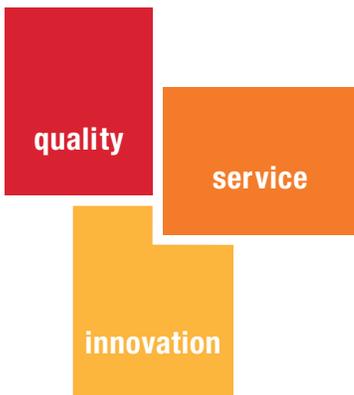
Glanzvolle Ergebnisse sind meist die Summe perfekter Details. Seit 1910 steht der Name Benda-Lutz für die besten Zutaten für Lacke, Pulverlacke, Porenbeton, Kunststoffe und Druckfarben.

our promise and how we deliver

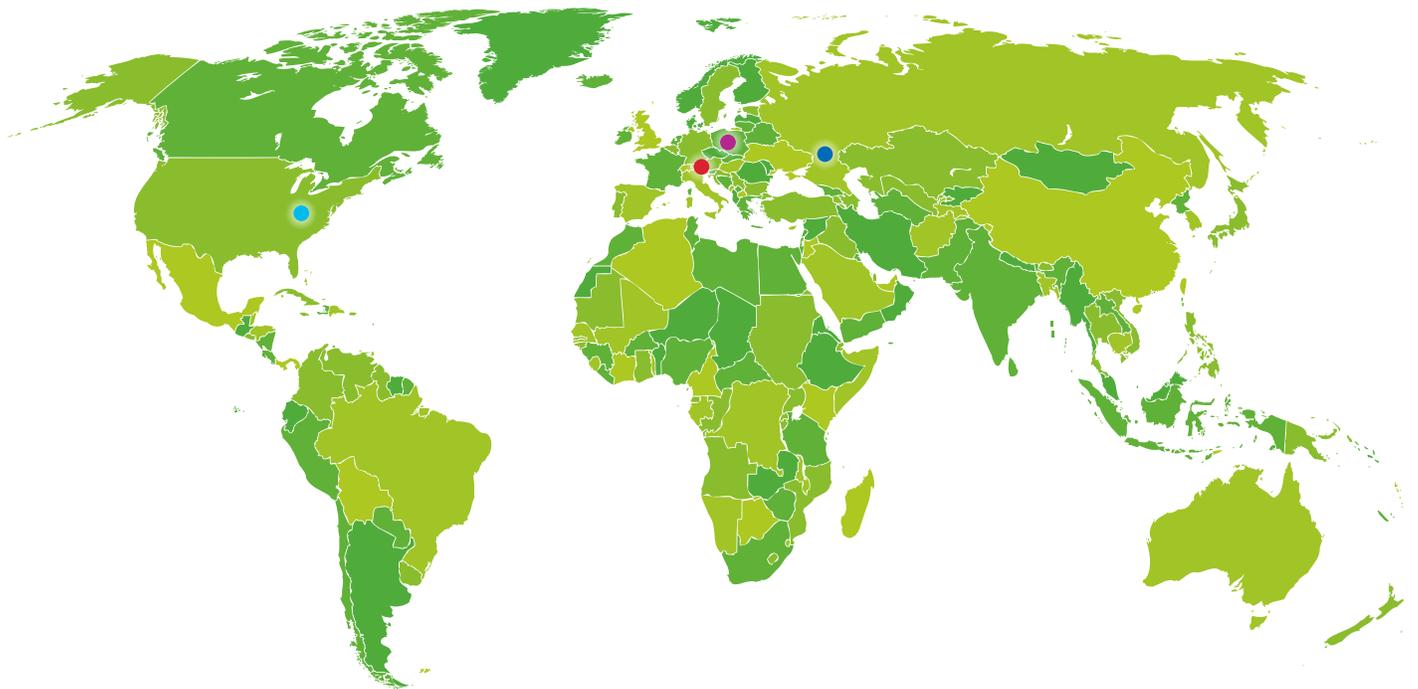
We tailor solutions. We nurture ideas. And we bring the latest technology to market. With 100 years of experience, and a depth of resources from which to draw, we have the people, knowledge and products to make any project a success. Every hour of every day, we are working to deliver quality, service and innovation to our clients worldwide.

Unser Versprechen und wie wir arbeiten

Wir liefern maßgeschneiderte Lösungen. Wir hegen und pflegen Ideen. Und wir bringen die neuesten Technologien auf den Markt. Mit der Erfahrung von mehr als 100 Jahren und einer Fülle an Ressourcen haben wir die Mitarbeiter, das Wissen und die Produkte, um jedes Projekt erfolgreich werden zu lassen. Wir arbeiten jede Stunde jeden Tag, um Qualität, Service und Innovation an unsere Kunden abzuliefern.



wherever you are in the world, our team will help you to find the right product.



Global Technical Service
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- Nussdorf, Austria
- Skawina, Poland
- Volzhsky, Russia
- Independence, USA

4 Benda-Lutz Fields of Application

Benda-Lutz Brands	Leafing	Non-leafing	METALLIC	COMPAL WS	MAXAL	SPLENDAL	DEPUVAL	ZINC
Type of Metal / Metall	Al		Al Passivated		Al			Zn
Delivery Form / Lieferform	Paste		Pellet	Paste	Dispersion	Non-dusting Powder	Paste / Powder	
Applications / Anwendungen								
Aerosols / Spraydosenslacke	x	x	x	x	x	x	x	x
Automotive OEM / Automobillacke		x			x	x		x
Automotive Refinish / Autoreparaturlacke		x			x	x		
Automotive Trim / Automobillacke Kunststoffanbauteile Exterieur		x	x		x	x		
Can Coatings / Can Coatings		x	x	x				
Chrome Effects / Chromeffekt	x					x		
Coil Coatings / Bandbeschichtungen		x	x	x	x	x		
Corrosion Protection / Korrosionsschutz	x	x		x			x	x
Decorative Paints / Dekorlacke		x	x	x	x			
Hammer Finishes / Hammerschlaglacke		x	x	x				
Heat Resistant Paints / Hitzebeständige Lacke	x	x	x				x	x
Marine Coatings / Schiffsfarben	x	x		x			x	
Roof Coatings / Dachbeschichtungen	x						x	

Leafing Aluminium Pigments

Due to their high surface tension, leafing aluminium pigments migrate toward the surface of the paint film. This enrichment at the boundary protects the paint film from weathering, radiation and corrosion. Leafing pigments form a strongly reflective metal layer at the paint surface giving high metallic brilliance and gloss. It should be noted that this leafing effect can be reduced or completely destroyed by unfavorable formulations (low solvent surface tension, water, etc.).

Preferred applications

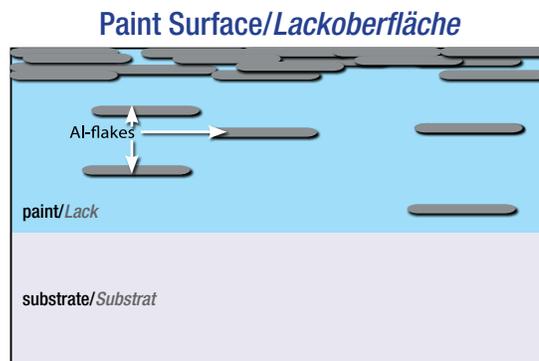
Corrosion protection
 Reflective paints
 Maintenance coatings
 Marine paints
 Roof coatings
 High heat resistance
 Chrome effect paints
 Aerosols

Aluminiumpigmente leafing

Durch ihre hohe Oberflächenspannung tendieren diese Pigmente zur Oberfläche des Lackfilms. Diese Anreicherung an der Grenzfläche schützt den Lackfilm vor Verwitterung, Strahlung und Korrosion. Leafing-Pigmente bilden eine stark reflektierende Metallschicht an der Lackoberfläche, die einen metallischen Spiegeleffekt erreichen kann. Es ist anzumerken, dass der Leafing-Effekt durch ungünstige Formulierungen reduziert oder komplett zerstört werden kann (zu niedrige Oberflächenspannung, Wasser etc.)

Bevorzugte Anwendungen

Korrosionsschutz
 Reflexionslacke
 Reparaturlacke
 Schiffslacke
 Dachbeschichtungen
 Hochhitzebeständige Lacke
 Chromeffektlacke
 Spraydosenslacke



Benda-Lutz Brands	STABIL SI 76XX	STABIL SI 66XX	MAXAL SI 76XXX	MAXAL SI 66XXX	MAXAL EC	SPLENDAL 66XX	GOLDBRONZE
Type of Metal / Metall	Encapsulated Al					Al passivated	Cu/Zn Alloy stabilized
Delivery Form / Lieferform	Powder	Paste	Powder	Paste	Paste / Powder	Dispersion	Paste / Powder
Applications / Anwendungen							
Aerosols water based / Spraydosenslacke wässrig		x		x		x	x
Automotive OEM water based / Automobillacke wässrig				x		x	
Automotive Refinish water based / Autoreparaturlacke wässrig				x			
Automotive Trim water based / Automobillacke wässrig/ Kunststoffanbauteile Exterieur				x		x	
Can Coatings water based / Can Coatings wässrig		x					x
Coil Coatings water based / Bandbeschichtungen wässrig		x		x		x	
Decorative Paints water based / Dekorlacke wässrig	x	x	x	x		x	x
High Chemical Resistance Coatings / Lacke für hohe Chemikalienbeständigkeit					x		
Heat Resistant Paints water based / Hitzebeständige Lacke wässrig		x					
Industrial Coatings water based Industriellacke wässrig	x	x	x	x			x
Liquid Metal Effects water based						x	
UV Coatings / UV-Lacke	x		x				

Non-Leafing Aluminium Pigments

Non-leafing aluminium pigments distribute themselves evenly throughout the paint film and thus reflect incident light at multiple locations. For this reason, these pigments are highly suitable for tinted paints such as colored metallic automotive paints or tinted hammer-effect enamels. Non-leafing pigments are also preferred for applications requiring excellent adhesion, such as primers.

Preferred applications

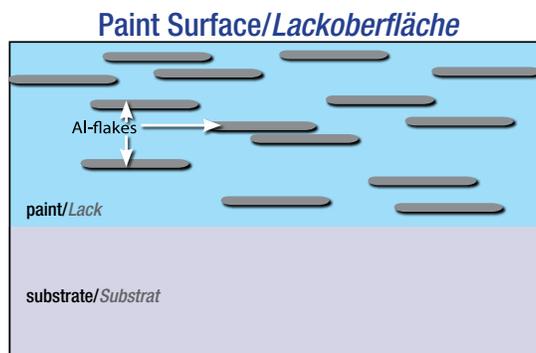
- One-coat paints
- Hammer-effect enamels
- Primers
- Marine coatings
- Corrosion protection
- Zinc rich coatings
- Coil and can coatings
- High heat resistance

Aluminiumpigmente non-leafing

Non-leafing Aluminiumpigmente verteilen sich gleichmäßig im Lackfilm und reflektieren so das einfallende Licht an verschiedenen Stellen. Dadurch eignen sie sich hervorragend für getönte Lacke wie z.B. bunte metallische Fahrzeuglacke oder getönte Hammerschlaglacke. Non-leafing Pigmente werden auch bevorzugt z.B. für Primer-Lacke eingesetzt, die exzellente Haftung erfordern.

Bevorzugte Anwendungen

- Einschichtlacke
- Hammerschlaglacke
- Grundierungen
- Schiffslacke
- Korrosionsschutzlacke
- Zinkstaubfarben
- Coil und Can Coatings
- Hochhitzebeständige Lacke



Leafing Aluminium Pastes:

Aluminiumpasten leafing

Benda-Lutz Leafing		1031	1041	1051	1081
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	23	18	16	9
Metal Content ¹⁾ <i>Metallanteil</i>	%	66	66	66	66
Water Coverage <i>Deckfähigkeit auf Wasser</i>	cm ² /g	17.000	23.000	29.000	41.000
Residue on 100 mesh sieve <i>Rückstand auf Sieb 160µm</i>	max %				
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %	5	1	0,5	0,5
Leafing Value <i>Leafingwert</i>	%	65	65	65	60

1) Supplied in aromatic free white spirits / *Deliefert in aromatenfreiem Testbenzin*

TB/SN = White Spirit/Solvent Naphtha and other solvents available upon request / *Testbenzin/Solventnaphtha und andere Lösungsmittel auf Anfrage*

Custom Solvent Leafing Aluminium Pastes:

Aluminiumpasten leafing mit Lösungsmittelvarianten

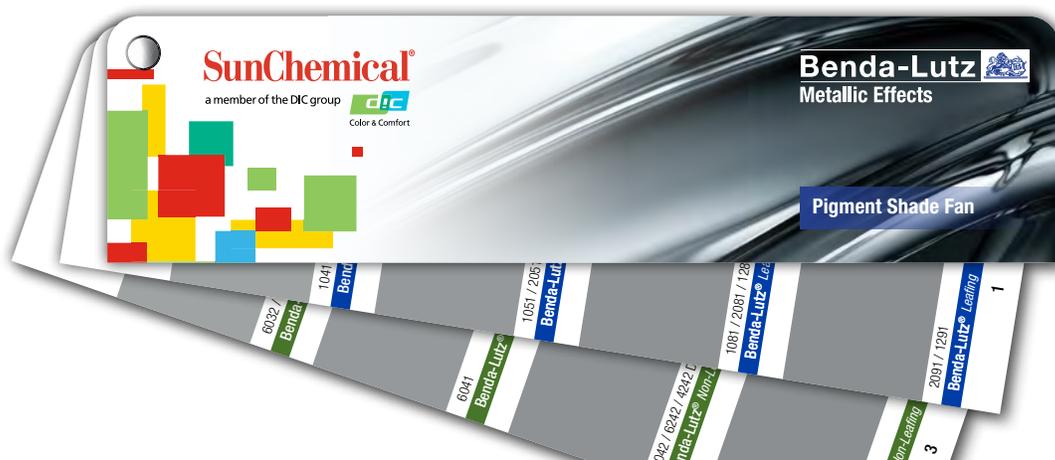
Benda-Lutz Leafing		1241	1251	1281	1291
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	23	15	9	5
Metal Content <i>Metallanteil</i>	%	73 ¹⁾	73 ¹⁾	73 ¹⁾	73 ¹⁾
Solvent <i>Lösungsmittel</i>		2)	2)	2)	2)
Water Coverage <i>Deckfähigkeit auf Wasser</i>	cm ² /g	22.000	27.000	36.000	45.000
Residue on 100 mesh sieve <i>Rückstand auf Sieb 160µm</i>	max %				
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %	1	0,5	0,1	0,1
Leafing Value <i>Leafingwert</i>	%	65	65	65	55

1) Other metal contents on special request.
Andere Metallanteile auf Anfrage.

2) Solvents on request / *Lösungsmittel auf Anfrage*

Our shade fan can help
you find the right product.

*Unser Pigmentfächer
hilft Ihnen bei der
Suche nach
dem richtigen Produkt*



Benda-Lutz DEPUVAL: Non-Dusting Leafing Aluminium Powders

Benda-Lutz DEPUVAL: Aluminiumpulver leafing nicht staubend

DEPUVAL is a non-dusting preparation based on leafing aluminium powder. This unique process produces aluminium powders that are safer to incorporate (similar to aluminium paste) than conventional powders. The key difference is that DEPUVAL is solvent-free and therefore has universal compatibility. Due to the dust-free processing, no impurities arise – so there is increased safety.

DEPUVAL ist eine nicht-staubende Zubereitung auf Basis eines Leafing-Aluminiumpulvers. Dieser einzigartige Prozess erzeugt Aluminiumpulver, die sicherer als herkömmliche Aluminiumpulver eingearbeitet werden können (ähnlich wie Aluminiumpasten). Der Hauptunterschied ist, dass Depuval lösungsmittelfrei und daher universell einsetzbar ist. Durch die staubfreie Verarbeitung entstehen keine Verunreinigungen – somit ist erhöhte Sicherheit gegeben.

Benda-Lutz DEPUVAL		3030	3041	3051	3081
Average Particle Size ¹⁾ Durchschnittliche Teilchengröße ¹⁾	µm	19	23	15	9
Water Coverage ¹⁾ Deckfähigkeit auf Wasser ¹⁾	cm ² /g	15.000	22.000	27.000	36.000
Residue on 325 mesh sieve ¹⁾ Rückstand auf Sieb 45µm ¹⁾	max %	5	1	0,5	0,1
Leafing Value ¹⁾ Leafingwert	%	65	65	65	65
Bulk Density Schüttdichte	kg/L	0,4	0,4	0,4	0,4

1) Analysis before dedusting

Analysenwerte bestimmt vor der Entstaubung



Typical Al Powders
Normales Aluminiumpulver



DEPUVAL

Aromatic Free, Non-Leafing Aluminium Pastes: *Aluminiumpasten non-leafing, aromatenfrei*

Benda-Lutz Non-Leafing		6042	6061	6061C
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	13	13	12
Metal Content ¹⁾ <i>Metallanteil</i>	%	68	68	68
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %		0,5	
Residue on 500 mesh sieve <i>Rückstand auf Sieb 25µm</i>	max %	0,5		0,5

1) Supplied in aromatic free white spirits / *Deliefert in aromatenfreiem Testbenzin*

Non-Leafing Aluminium Pastes: *Aluminiumpasten non-leafing*

Benda-Lutz Non-Leafing		6032 TB/SN	6040 TB/SN	6041A TB/SN	6051 TB/SN
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	25	20	20	16
Metal Content ¹⁾ <i>Metallanteil</i>	%	65	65	68	68
Residue on Sieve 325mesh <i>Rückstand auf Sieb 45µm</i>	max.%	1	1	1	0,5

1) Supplied in TB/SN = White Spirit/Solvent Naphtha / *Deliefert in Testbenzin/Solventnaphtha*

Preferred applications

Aerosols
Can Coating
Decorative Paints
Coil Coating
Corrosion Protection
Hammer finishes
Heat resistant Paints
Marine Coatings

Bevorzugte Anwendungen

Spraydosenlacke
Can Coating
Dekorlacke
Bandbeschichtungen
Korrosionsschutz
Hammerschlaglacke
Hitzebeständige Lacke
Schiffsfarben



Benda-Lutz METALLIC: Non-Leafing Aluminium Pastes

Benda-Lutz METALLIC: Aluminiumpasten non-leafing

BENDA-LUTZ METALLIC series for coatings gives a delicate combination of sparkle, brilliance and opacity. These non-leafing aluminium pastes provide unlimited styling potential for a wide variety of applications.

Preferred applications

Vehicle paints
Plastics paints
High quality topcoats
Aerosols
Can coatings
Coil coatings

Die BENDA-LUTZ METALLIC-Serie für Lacke weist eine erlesene Kombination von Sparkle-Effekt, Brillanz und Deckkraft auf. Diese Non-leafing-Aluminiumpasten bieten eine Vielzahl von Gestaltungsmöglichkeiten für ein breites Anwendungsgebiet.

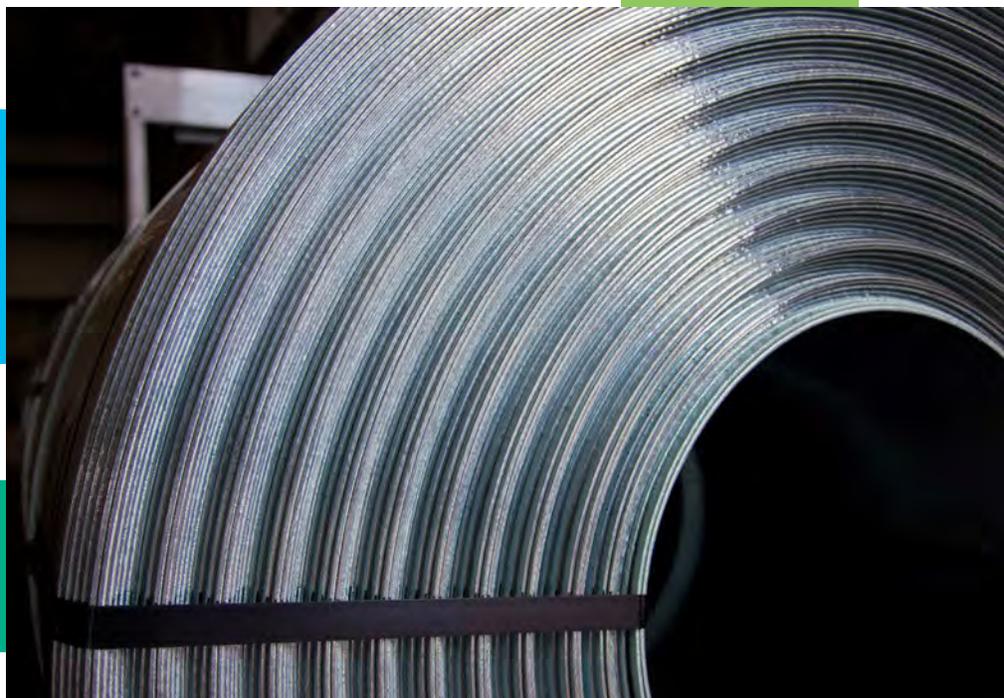
Bevorzugte Anwendungen

*Fahrzeuglacke
Kunststofflacke
Hochwertige Decklacke
Spraydosenlacke
Can coatings
Bandbeschichtungen*

Benda-Lutz METALLIC		6814	6824	6826	6845
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	37	33	32	23
Metal Content ¹⁾ <i>Metallanteil</i>	%	75 ²⁾	65 ²⁾	65 ¹⁾	65 ¹⁾
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %	1	1	2	1

1) TB/SN = White Spirit/Solvent Naphtha / Testbenzin/Solventnaphtha

2) White spirits aromatic free / Testbenzin aromatifrei



Benda-Lutz MAXAL: Non-Leafing Aluminium Pastes

Benda-Lutz MAXAL: Aluminiumpasten non-leafing

Automotive stylists will be interested in the exceptional brilliance and travel of MAXAL. These non-leafing, lenticular grades are produced via sophisticated milling processes yielding narrow particle size distributions and polished flake surfaces.

Die außergewöhnliche Brillanz wie auch der Flop werden das Interesse von Automobildesignern wecken. Diese non-leafing, linsenförmigen Typen werden durch hochentwickelte Mahlverfahren erzeugt, die ein enges Kornband und glänzende Pigmentoberflächen ergeben.

Aromatic Free, Non-Leafing Aluminium Pastes:

Aluminiumpasten non-leafing, aromatenfrei

Benda-Lutz MAXAL		64012	64014
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	57	36
Metal Content ¹⁾ <i>Metallanteil</i>	%	68	68
Residue on 230 mesh sieve <i>Rückstand auf Sieb 63µm</i>	max %	0,5	
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %		0,5

1) Supplied in aromatic free white spirits / *Deliefert in aromatenfreiem Testbenzin*

Non-Leafing Aluminium Pastes:

Aluminiumpasten non-leafing

Benda-Lutz MAXAL		64013 TB/SN	64025 TB/SN	64027 TB/SN	64035 TB/SN	64047 TB/SN	64054 TB/SN	64064 TB/SN	64084 TB/SN
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	50	40	30	25	21.5	17	15	9
Metal Content ¹⁾ <i>Metallanteil</i>	%	68	68	68	68	68	68	68	68
Residue on 200 mesh sieve <i>Rückstand auf Sieb 71µm</i>	max %		1	1					
Residue on 230 mesh sieve <i>Rückstand auf Sieb 63µm</i>	max %	1							
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %				1	1	1	1	1

1) Supplied in white spirits/naphtha (TB/SN) / *Deliefert in Testbenzin/Naphtha (TB/SN)*



Benda-Lutz COMPAL WS

COMPAL WS is an exciting new range of highly concentrated, VOC-free aluminum preparations for inks and coatings. Designed for long term gassing stability in aqueous environments, COMPAL WS can be used in both water or solvent based systems providing maximum formulation flexibility. Each grade is delivered in an easily dispersible granular form for safe and easy handling, improved shelf stability and numerous advantages in transport.

Benefits

Outstanding gassing stability in water based inks and coatings
Easily dispersible VOC-free granular form
Highly concentrated (88-90% metal)
Compatible in water and solvent based systems
Improved handling, storage and transport
Compatible with broad polarity range of solvents
Compatible in most UV systems

Benda-Lutz COMPAL WS

COMPAL WS ist eine, spannende Auswahl an hochkonzentrierten Präparationen, die frei von flüchtigen organischen Verbindungen sind, für die Anwendung im Druckfarben- und Lackbereich. Konzipiert für lang anhaltende Gasungsstabilität in wässrigen Systemen. COMPAL WS kann in beiden Systemen, wässrig- und lösungsmittelbasierend, verwendet werden und bietet dadurch maximale Formulierungsflexibilität. Alle Typen werden in einer leicht zu dispergierenden Granulatform geliefert, für sichere und einfache Handhabung, mit einer verbesserten Lagerstabilität und zahlreichen Vorteilen betreffend Transport.

Benefits

Hervorragende Gasungsstabilität in wasserbasierenden Druckfarben- und Lackanwendungen
Leicht zu dispergierende, VOC-freie Granulatform
Hochkonzentriert (88-90% Metall)
Verträglich mit wasser- und lösungsmittelbasierenden Systemen
Verbessert in Handhabung, Lagerung und Transport
Verträglich mit einer großen Bandbreite an Lösungsmittelpolaritäten
Verträglich mit den meisten UV Systemen

Benda-Lutz COMPAL WS		4151 WS	4242 WS	4411 WS	4464 WS	4468 WS	4474 WS
Average Particle Size Durchschnittliche Teilchengröße	µm	16	13	55	16	15	11
Type Type		Semi-Leafing Semi-Leafing	Non-Leafing Non-Leafing	Non-Leafing Silver Dollar Non-Leafing Silberdollar			
Metal Content Metallanteil	%	90	90	88	90	88	88
Residue on 120 mesh sieve Rückstand auf Sieb 125µm	max %			1,0			
Residue on 325 mesh sieve Rückstand auf Sieb 45µm	max %	0,5			1,0	1,0	1,0
Residue on 500 mesh sieve Rückstand auf Sieb 25µm	max %		0,5				

Benda-Lutz STABIL SI: Encapsulated Non-Leafing Aluminium Pastes

Benda-Lutz STABIL SI: Anorganisch beschichtetes Aluminium

Based on leading technology, this series of inorganic encapsulated aluminium pigments provide a variety of optical effects with long term stability and gassing resistance for waterborne.

Preferred applications

STABIL SI 66xx

Can and Coil waterbased

Industrial Coatings waterbased

Decorative Paints waterbased

Heat Resistant Paints waterbased

STABIL SI 76xx

Industrial Coatings waterbased

Decorative Paints waterbased

UV coatings

Diese Serie anorganisch beschichteter Aluminiumpigmente bietet eine Vielfalt an optischen Effekten mit hohen chemischen Beständigkeiten wie auch einer exzellenten Gasungsstabilität in wässrigen Lacksystemen.

Bevorzugte Anwendungen

STABIL SI 66xx

Can und Bandbeschichtungen wässrig

Industrielacke wässrig

Dekorlacke wässrig

Hitzefeste Lacke wässrig

STABIL SI 76xx

Industrielacke wässrig

Dekorlacke wässrig

UV-Lacke

SI Encapsulated Aluminium Non-Leafing Pastes:

Silikatbeschichtete Aluminiumpasten non-leafing

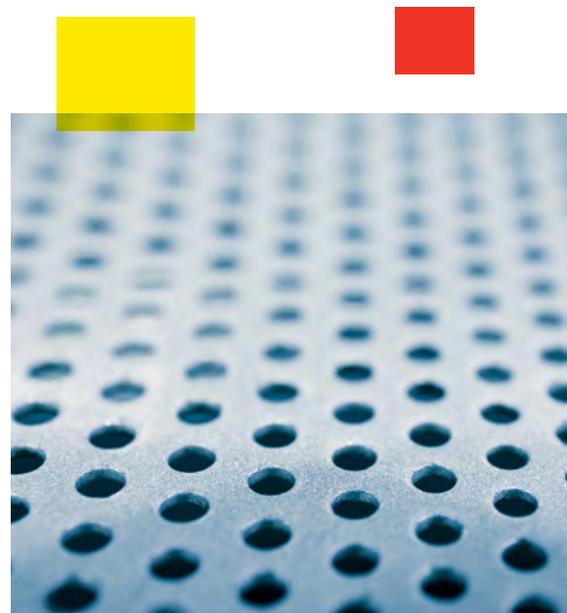
Benda-Lutz STABIL SI		6614 SI/70	6642 SI/50	6651 SI/50
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	35	11	16
Metal Content <i>Metallanteil</i>	%	70	50	50
Solvent <i>Lösungsmittel</i>		Butyl Glycol ¹⁾ <i>Butylglykol</i>		
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %	5	0,5	0,5

1) Other solvents on special request / *Andere Lösungsmittel auf Anfrage*

SI Encapsulated Aluminium Non-Leafing Powders:

Silikatbeschichtete Aluminiumpulver non-leafing

Benda-Lutz STABIL SI		7610 SI	7614 SI	7617 SI	7624 SI	7642 SI	7651 SI
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	50	35	35	28	11	16
Residue on Sieve 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %		5	5	2	0.5	0.5



Benda-Lutz MAXAL SI: Encapsulated Non-Leafing Silver Dollars

Benda-Lutz MAXAL SI: Silikatbeschichtete Silberdollar

This line of lenticular grades combines the exceptional brilliance and travel of MAXAL with the gassing resistance and circulation stability of SI encapsulation.

Diese Silberdollar-Pasten kombinieren die außergewöhnliche Brillanz und Flop von MAXAL-Pigmenten mit der Gasungsbeständigkeit sowie der guten Zirkulationsbeständigkeit unserer SI-Beschichtung in wässrigen Lacksystemen.

SI Encapsulated Aluminium Non-Leafing Pastes:

Silikatbeschichtete Aluminiumpasten non-leafing

Benda-Lutz MAXAL SI		66008 SI/70	66012 SI/70	66024 SI/70
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	63	55	32
Metal Content <i>Metallanteil</i>	%	70	70	70
Solvent <i>Lösungsmittel</i>		Butyl Glycol ¹⁾ <i>Butylglykol</i>		
Residue on 140 mesh sieve <i>Rückstand auf Sieb 100µm</i>	max %	2		
Residue on 230 mesh sieve <i>Rückstand auf Sieb 63µm</i>	max %		0,5	
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %			0,5
Residue on 500 mesh sieve <i>Rückstand auf Sieb 25µm</i>	max %			

1) Other solvents on special request / *Andere Lösungsmittel auf Anfrage*

SI Encapsulated Aluminium Non-Leafing Powders:

Silikatbeschichtete Aluminiumpulver non-leafing

Benda-Lutz MAXAL SI		76008 SI	76012 SI	76014 SI	76024 SI	76044 SI
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	63	55	37	32	20
Residue on 140 mesh sieve <i>Rückstand auf Sieb 100µm</i>	max %	2				
Residue on 230 mesh sieve <i>Rückstand auf Sieb 63µm</i>	max %		0,5			
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %			0,5	0,5	
Residue on 500 mesh sieve <i>Rückstand auf Sieb 25µm</i>	max %					1

Benda-Lutz MAXAL EC: Encapsulated Non-Leafing Aluminium Silver Dollars

Benda-Lutz MAXAL EC: Anorganisch beschichtete Silberdollar non-leafing

MAXAL EC grades give superior resistance to acid and alkali staining for a variety of applications including the coating of automotive parts and accessories. This next generation encapsulation technology provides extraordinary chemical resistance without impacting the optical properties of the base aluminium flake.

MAXAL EC Pigmente besitzen in einer Vielzahl von Anwendungen höhere Beständigkeiten gegen Säuren und Basen, z.B. Lacke für Fahrzeugteile und -zubehör. Diese nächste Generation der Beschichtungstechnologie besticht durch außergewöhnliche chemische Beständigkeit, ohne die optischen Eigenschaften des ursprünglichen Aluminiumpigments zu beeinträchtigen.

EC Encapsulated Non-Leafing Aluminium Powders:

EC beschichtete Aluminiumpulver non-leafing

Benda-Lutz MAXAL EC		76012 EC	76014 EC	76044 EC	76064 EC	76094 EC
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	54	34	21	17	7
Residue on 230 mesh sieve <i>Rückstand auf Sieb 63µm</i>	max %	0.5				
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %		0.5		1	
Residue on 500 mesh sieve <i>Rückstand auf Sieb 25µm</i>	max %			1		1



Benda-Lutz SPLENDAL: Vacuum Metallized Aluminium Suspensions

Benda-Lutz SPLENDAL: Vakuum-metallisierte Aluminium-Pigment-Suspensionen

Microscopically thin non-leafing aluminium platelet suspensions produced via physical vapor deposition (PVD). This unique manufacturing technology provides perfectly smooth and uniform flakes for extraordinary brilliance and coverage.

Mikroskopisch dünne Non-Leafing-Aluminiumplättchensuspensionen hergestellt durch PVD. Dieses einzigartige Herstellverfahren sorgt für extrem gleichmäßige Pigmente mit außergewöhnlicher Brillanz und Deckkraft, um den Spiegeleffekt zu erhalten, den Sie suchen.

Preferred applications

Wheel rim paints
Reflectors
Automotive accessories
Automotive OEM
Kitchen and furniture handles
Sport and recreational equipment
Exclusive household devices
Precious stones

Bevorzugte Anwendungen

Felgenlacke
Reflektoren
Autozubehörteile
Automobillacke
Küchen- und Möbelgriffe
Sport- und Freizeitausstattung
Exklusive Haushaltsgeräte
Schmucksteine

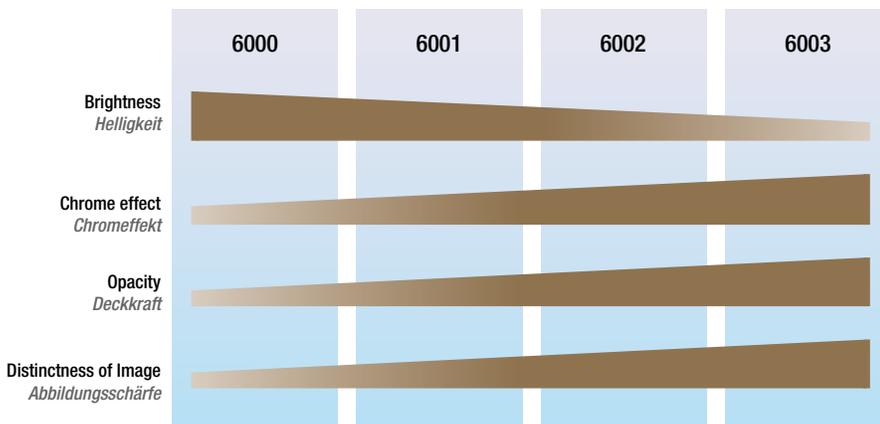
Benda-Lutz SPLENDAL		6000	6001	6001 L	6002	6003
Metal Content <i>Metallanteil</i>	%	10	10	10	10	10
Solvent ¹⁾ <i>Lösungsmittel</i>		MOPAC Methoxy Propyl Acetate <i>Methoxypropanol</i>				

Also available with the following solvent (identification by suffix):

Lieferbar auch mit folgendem Lösungsmittel (Kennzeichnung durch Zusatzbuchstaben)

MP = Methoxy Propanol / *Methoxypropanol*

EA/IPA = Ethyl Acetate/Isopropyl Acetate / *Ethyl Acetat/Isopropyl Acetat*



Microscope picture
vacuum metallized pigments

*Mikroskopfoto
Vakuum metallisierte Pigmente*

Benda-Lutz SPLENDAL for Waterborne: Passivated VMP Aluminium Suspensions
Benda-Lutz SPLENDAL: Passivierte vakuum-metallisierte Aluminium-Pigment-Suspensionen für wasserbasierte Lacksysteme

These SPLENDAL grades are supplied in a passivated form offering mirror-like metallic effects for waterborne coatings.

Diese passivierten SPLENDAL-Typen ermöglichen einen metallischen Spiegeleffekt für wasserbasierende Lacke.

Benda-Lutz SPLENDAL		6600	6601	6602	6603
Metal Content <i>Metallanteil</i>	%	10	10	10	10
Solvent <i>Lösungsmittel</i>		Butyl Glycol <i>Butylglykol</i>			



Benda-Lutz ZINC Flake: Powders and Pastes for Excellent Corrosion Protection

Benda-Lutz Zinc Flake: Pulver und Pasten für exzellenten Korrosionsschutz

Benda-Lutz ZINC Flake powders and pastes provide outstanding corrosion protection even when used in relatively low concentrations. These products combine the cathodic protection of high purity zinc with the compression effects and barrier properties of lamellar flake geometries. Industry leading corrosion protection can be achieved with low film thickness. Furthermore, a true black zinc flake (Z2031) is offered which opens up new styling opportunities for paint manufacturers.

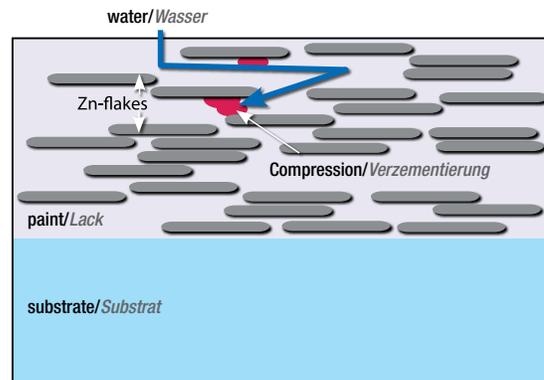
Benda-Lutz Zink Flakes Pulver und Pasten bieten hervorragenden Korrosionsschutz bei relativ geringer Konzentration. Diese Produkte kombinieren den kathodischen Schutz des hoch reinen Zinks mit dem Verzementierungseffekt und den Barriereeigenschaften bedingt durch die lamellare Ausrichtung der Pigmente. Exzellenter Korrosionsschutz wird bereits mit geringen Schichtstärken erzielt. Außerdem wird ein schwarzes Zink Flake (Z2031) angeboten, das Lackproduzenten neue Möglichkeiten eröffnet.

Electrochemical series Elektromechanische Spannungsreihe									
Na	Al	Zn	Cr	Fe	Fe	H ₂	Cu	Au	
Na+	Al ³⁺	Zn ²⁺	Cr ³⁺	Fe ²⁺	Fe ³⁺	H ₃ O ⁺	Cu ⁺	Au ⁺	
-2,71	-1,66	-0,76	-0,76	-0,44	-0,036	0,00	+0,35	+1,70	

The lower the potential the stronger the elements take effect as reductions agent.
The higher the potential the stronger the elements take effect as oxidizing agent.

Je niedriger das Normalpotential ist, umso stärker wirkt das Metall als Reduktionsmittel.
Je positiver das Normalpotential ist, umso stärker wirken die Ionen als Oxydationsmittel.

Paint-Surface/Lackoberfläche



Benda-Lutz ZINC	Z1047	Z2012	Z2031
Color / Farbe	Silver / Silber	Anthracite Anthrazit	Black / Schwarz
Delivery form / Lieferform	Paste	Powder / Pulver	Powder / Pulver
Average Particle Size Durchschnittliche Teilchengröße	µm 14	µm 27	µm 11
Zinc Purity / Reinheit	Min. % 99,995% Zn		
Form of Grain / Kornform	Flakes Plättchenförmig	Flakes Plättchenförmig	Flakes Plättchenförmig
Metal Content / Metallanteil	90% ¹⁾	100%	100%
Residue on 100 mesh sieve Rückstand auf Sieb 160µm		max % 1	
Residue on 325 mesh sieve Rückstand auf Sieb 45µm	max % 3		
Residue on 450 mesh sieve Rückstand auf Sieb 32µm			max % 3
Bulk Density / Schüttdichte	kg/L 2,2	kg/L 1,0	kg/L 1,9

Preferred applications

- Ancillary auto parts (screws, clips etc.)
- Highly heat-resistant paints (exhaust)
- Aerosols
- Coil coatings
- Primers

Bevorzugte Anwendungen

- Autozulieferteile (Schrauben, Schellen etc.)
- Hochhitzebeständige Lacke (Auspuff)
- Spraydosenslacke
- Bandbeschichtungen
- Grundierungen



1) Supplied in aromatic free white spirits / Geliefert in aromatenfreiem Testbenzin

Benda-Lutz GOLDBRONZE: Metallic Shades from Rich Gold to Copper

Benda-Lutz Goldbronze: Metallic-Farbtöne von Reichgold bis Kupfer

Benda-Lutz GOLDBRONZE line consists of copper-zinc alloys ranging in color from yellowish metallic to reddish tones. Standard colors are pale gold, rich pale gold, rich gold and copper. If required, special color tones (Sovereign Gold, Fire Red and Orange) are available in select particle sizes. Benda-Lutz GOLDBRONZE pigment create ideal metallic golds that cannot be matched with blends of aluminium and organic colorants. For improved temperature stability, select from the wide variety of stabilized powders.

Preferred applications

Decorative paints
Effect paints
Aerosols
Conductive paints

Benda-Lutz Goldbronzepigmente bestehen aus Messing (Kupfer-Zink-Legierung) und sind in gelblichen bis rötlichen Farbtönen verfügbar. Standardmäßig sind sie in den Farben Bleichgold, Reichbleichgold, Reichgold und Kupfer erhältlich. Bei Bedarf sind auch Sonderfarbtöne (Dukatengold, Feuerrot und Orange) in bestimmten Teilchengrößen verfügbar. Benda-Lutz Goldbronzen erzeugen einen edlen Goldfarbton, an den Mischungen aus Aluminium und organischen Farbstoffen nicht herankommen. Für verbesserte Temperaturbeständigkeit wählen Sie bitte aus der breiten Palette von stabilisierten Goldbronze-Pulvern.

Bevorzugte Anwendungen

Dekorlacke
Effektlacke
Spraydosenlacke
Leitlacke

Goldbronze Powders:

Goldbronzepulver

Benda-Lutz GOLDBRONZE		G2021	G2031	G2032	G2041	G2051	G2071	G2081
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	33	28	28	16	10	9	9,5
Residue on 100 mesh sieve <i>Rückstand auf Sieb 160µm</i>	max %	0,5	0,5	0,5				0,5
Residue on 200 mesh sieve <i>Rückstand auf Sieb 71µm</i>	max %				1			
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %					1,5	0,5	
Bulk Density <i>Schüttdichte</i>	kg/L	0,8	0,8	0,8	0,7	0,7	0,6	0,6
Natural Color Shades / Naturfarbtöne								
Rich Gold / <i>Reichgold</i>		•	•		•	•	•	•
Rich Pale Gold / <i>Reichbleichgold</i>		•	•		•	•	•	
Pale Gold / <i>Bleichgold</i>		•	•		•	•	•	
Copper / <i>Kupfer</i>		•	•		•	•	•	
Oxidized Color Shades / Feuergefärbte Töne								
Sovereign Gold / <i>Dukatengold</i>			•	•				
Fire Red / <i>Feuerrot</i>			•					

Goldbronze Pastes: Goldbronzepasten

Benda-Lutz GOLDBRONZE		G1231	G1241	G1251	G1271
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	28	16	10	9
Metal Content <i>Metallanteil</i>	%	87	87	87	87
Solvent <i>Lösungsmittel</i>		1)	1)	1)	1)
Natural Color Shades / Naturfarbtöne					
Rich Gold / <i>Reichgold</i>		•	•	•	•
Rich Pale Gold / <i>Reichbleichgold</i>		•	•	•	•
Pale Gold / <i>Bleichgold</i>		•	•	•	•
Copper / <i>Kupfer</i>		•	•	•	•

1) Solvents on request / *Lösungsmittel auf Anfrage*

Stabilized Goldbronze Powders: Goldbronzepulver stabilisiert

Benda-Lutz GOLDBRONZE		G7729	G7749	G7778
Average Particle Size <i>Durchschnittliche Teilchengröße</i>	µm	28	14	8
Residue on 100 mesh sieve <i>Rückstand auf Sieb 160µm</i>	max %			
Residue on 120 mesh sieve <i>Rückstand auf Sieb 125µm</i>	max %			
Residue on 200 mesh sieve <i>Rückstand auf Sieb 71µm</i>	max %	2		
Residue on 325 mesh sieve <i>Rückstand auf Sieb 45µm</i>	max %		2	1
Bulk Density <i>Schüttdichte</i>	kg/L	0,7	0,7	0,6
Natural Color Shades / Naturfarbtöne				
Rich Gold / <i>Reichgold</i>		•	•	•
Rich Pale Gold / <i>Reichbleichgold</i>		•	•	•
Pale Gold / <i>Bleichgold</i>		•	•	•
Copper / <i>Kupfer</i>		•	•	•



Pearlescent Effect Pigments

Sun Chemical pearlescent effect pigments add depth, shimmer, sparkle and provide exceptional styling possibilities. This line offers outstanding lightfastness, humidity resistance, batch-to-batch color consistency, and superior intercoat adhesion in most applications. Our exterior grades also deliver excellent weather stability.

Sun Chemical pearlescent pigments can deliver a variety of striking effects, from the silky satin of SunMICA to the brilliant sparkle effect of SunGEM XST. Our pearlescent pigments are compatible with both solvent and waterborne coatings, powder and coil coatings, 2K isocyanates, alkyds, epoxy, UV curables and stuccos to name a few.

SunMICA

SunMICA special effect pigments consist of thin natural mica coated with optical layers of titanium dioxide and/or iron oxide. Through precise control of light reflection and refraction, SunMICA offers pure silver-white, interference color, gold and metallic luster effects. SunMICA is available in a range of sizes.

SunMICA EXTERIOR

SunMICA EXTERIOR pearlescent effects invigorate designs with a wide range of luster, glitter and shimmer effects. Available in two exterior treatment technologies, SunMICA EXTERIOR XC and XR are crafted to meet the highest levels of durability requirements for exterior coatings. SunMICA EXTERIOR delivers a limitless array of styling possibilities for automotive, power coating, exterior architectural and other outdoor applications.

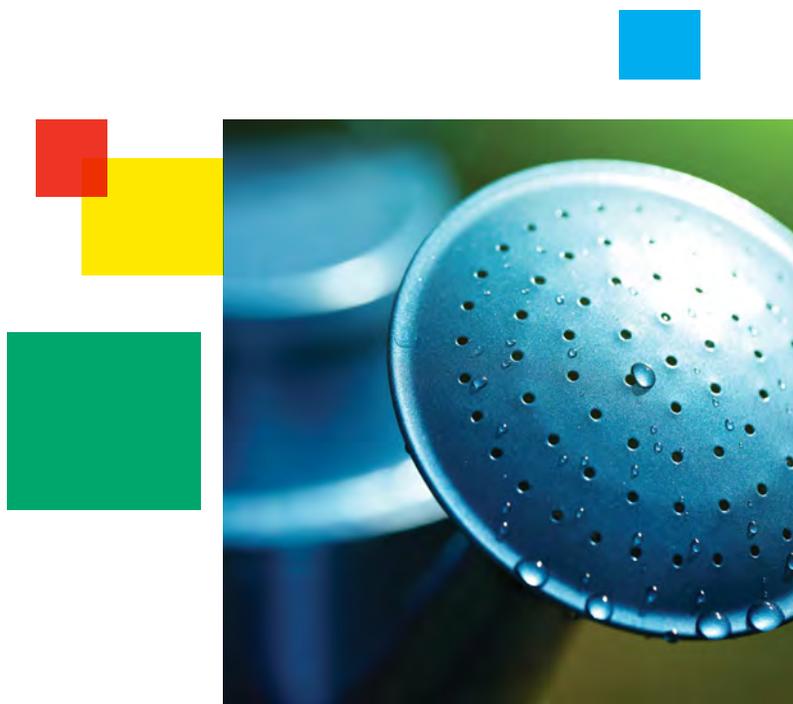
SunMICA LUX

Prestige brands deserve the premium quality and look that can only be achieved with SunMICA LUX. Utilizing ultra smooth, optically pure synthetic mica flakes, SunMICA LUX have the purest, cleanest whites and most lustrous interference colors. This unique material does not contain any iron or heavy metal impurities that can detract from the premium appearance. SunMICA LUX delivers the market's best pearlescent white effects.

SunGEM XST

Give your products the unmistakable sparkle effect of SunGEM XST. These premium effect pigments are based on ultra smooth glass platelets coated with titanium dioxide. They are exceptionally transparent making them ideal for use in combination with absorption pigments to provide dimensional sparkle to your most chromatic color formulations. Take your products to the highest level of quality and appearance with SunGEM XST.

Effect Pigment Brands	SunMICA	SunMICA EXTERIOR	SunMICA LUX	SunGEM XST
Type	natural mica	treated natural mica	synthetic mica	glass flake
Applications				
Aerosols	x	x	x	
Architectural/Deco	x		x	x
Automotive OEM		x		x
Automotive Refinish		x		x
Automotive Trim		x		x
Coil		x		
Consumer Electronics	x		x	x
Decorative	x		x	x
Exterior Architectural		x		
High temperature coatings	x		x	x
Leather Coatings	x		x	x
Powder coatings	x	x	x	x



Classical, High Performance Pigments and Preparations for Coatings

Sun Chemical has an extensive range of classical and high performance pigments to satisfy the color gamut for all coatings applications. In addition to our selection of standard dry colors, we have a range of specialty products that deliver unique properties like industry-leading transparency for automotive finishes or anti-flocculation for coil coating applications. Sun Chemical's organic pigments are available as flushed color, press cakes, dry color, granular preparations and waterborne liquid dispersions.

Fanchon

Yellow 110, Y-139, Y-150, Y-151, Y-184, Orange 36, and O-67
High performance pigments in the yellow and orange color space. Fanchon pigments feature excellent light fastness and heat stability suitable for all demanding coatings applications including automotive and powder coatings.

Fastogen and Fastogen Super

Red 209, R-224, R-122 R-254, Blue 15:3, B-15:4. High performance pigments in the red and blue color space featuring excellent light fastness, chemical resistance and good heat stability. Fastogens pigments are suitable for a variety of coatings applications

Indofast

Violet 23. High performance carbazole violet pigments for industrial and architectural applications.

Palomar

Blue 60, Turquoise, and Blue 15:1. High performance indanthrone and phthalocyanine blue pigments for automotive, industrial, powder and coil applications. Palomar's are well known for their light fastness and find wide usage in metallic automotive finishes.

Perrindo

Red 179 and Violet 29. High performance perylene pigments. Perrindo's are one of the most lightfast pigment chemistries available. Sun Chemical's high transparency grades are the industry standard in metallic red automotive finishes.

Quindo

Red 19, R-122, R-202, Violet 19 and V-55. High performance quinacridone pigments are widely used in all coatings types. Sun Chemical is the global leader in quinacridone chemistry and offers the most choices in transparent, semi-transparent and opaque pigments in the violet, magenta and red color space.

Sunbrite

Yellow 3, Y-65, Y-74, Orange 5, O-13, O-43, Red 3, R-48:4, R-49:2, R-112, R-177, R-188 and R-254. Classical pigments for a wide variety of architectural and industrial applications.

Sunfast

Blue 15:1, B-15:2, B-15:3, B-15:4, Green 7 and G-36. Phthalocyanine blue and green pigments for industrial, architectural, powder and automotive applications

Predisol

A range of highly pigmented (30-60%) dispersions in CAB for high performance solventborne coatings. They are available in a variety of pigment indexes including high jet black. Full dispersion is easily and quickly achieved through high shear mixing.

Sunperse Eco/Eco+

A resin free range of waterborne dispersions that are APEO and VOC free for use in industrial and architectural coatings. They are supplied in a non-settling, non-drying liquid form that are easy to dispense.



The widest choice of organic pigments for coatings.



200 years of coatings and resins expertise.

Advanced Materials, Additives, Resins & Coatings

With over a century of polymer expertise, Sun Chemical and its parent company, the DIC Corporation, have combined their innovative coatings technologies with products available in solventborne, waterborne and solvent free chemistries. We have a solution for your most complex requirements. Backed by Sun Chemical's local support and technical service and DIC resin expertise, our products enhance the performance, durability and efficiency of coatings in a broad variety of applications.



Brands	BURNOCK PH	HYDRAN	PATELACOL	DIC UV Curable	WATERSOL	CERANATE	DIC Acrylic	FINEPLUS	BURNOCK AC	Megaface	Defensa
Type	Phenolic Resins	PUD	Acrylic Resins	Fluorochemical Additive	Fluorochemical Coating						
Applications											
Architectural/Deco		x			x	x	x			x	x
Industrial Coatings	x	x		x	x	x	x		x	x	x
Automotive Refinish/Trim				x			x			x	x
Automotive Interior		x		x			x	x	x		
Coil		x	x	x						x	
Consumer Electronics	x			x			x			x	x
Decorative				x	x		x		x	x	
Exterior Architectural					x	x			x	x	x
High Temperature Coatings	x		x			x	x		x	x	
Leather Coatings		x					x			x	x
Powder Coatings							x	x			

BURNOCK PH

BURNOCK PH phenolic resins for interior can coatings can be formulated as a primer or monocoat system. BURNOCK PH are highly-flexible binders which exhibit outstanding chemical resistance and fast curing properties.

HYDRAN

HYDRAN polyurethane dispersions (PUDs) provide coatings with exceptional pliability, conformability and adherence. Optimized for metals, glass, wood and leather, HYDRAN PUDs provide exceptional chemical resistance, solvent resistance, weather resistance, heat resistance, rigidity and hardness.

PATELACOL

PATELACOL waterborne acrylic resins for pretreatment passivation coatings to replace chromates in a variety of applications, including pre-treatment coatings for coil/pre-coated metal. They provide excellent flexibility, resistance to corrosion, acid, alkali and water. PATELACOL acrylic resins exhibit excellent blending stability with PUDs to be applied to Zinc or Zinc-Aluminum plated metals.

DIC UV Cureable

Acrylic UV-curable oligomer resins, which are optimized for hard and soft coat coatings, exhibit fast curability, excellent adherence, non-yellowing properties, abrasion resistance and are available in solvent free varieties.

WATERSOL

WATERSOL acrylic resins are self-emulsifying aqueous resins with ionic hydrophilic components that are chemically incorporated into its resin backbone. WATERSOL acrylic resins demonstrate excellent pigment dispersibility and low-temperature film formation properties.

CERANATE

CERANATE acrylic resins are self-emulsifying aqueous resins modified with polysiloxane for coating films with fluoropolymer-type weather and stain resistance.

DIC Acrylic

Solvent-based acrylic resins are widely used to provide coatings with exceptional appearance and high durability. Available in ambient, baking, isocyanate curing and moisture curing chemistries.

FINEPLUS

FINEPLUS GMA resins are additives in powder coatings that produce unprecedented adhesion and dispersion properties in aluminum wheel coatings, body clear coats and metallic finishes.

BURNOCK AC

BURNOCK AC are waterborne acrylic polyol resins which are suitable for two-component ambient cure coatings when combined with water-dispersible polyisocyanates. Utilizing this unique chemistry, BURNOCK AC acrylic resins are easily mixable, providing coating film properties similar to solventborne resins that feature an environmentally-friendly design.

MEGAFACE

MEGAFACE fluorochemical additives are surface modifiers that provide UV-curable film surfaces with exceptional water and oil resistance as well as fingerprint and stain resistance.

DEFENSA

DEFENSA fluorochemical coatings exhibit excellent stain and water resistance as well as low friction and demolding properties. Optimized for a variety of substrates, DEFENSA grades are specialized for vinyl chloride, rubber, artificial leather, PET and many more substrates types.





quality

service

innovation

A partner who transforms with you.

Today's environment requires more than change. It demands transformation — and a partner who's willing to transform with you. Sun Chemical, a member of the DIC group, is a leading producer of printing inks, coatings and supplies, pigments, polymers, liquid compounds, solid compounds, and application materials. Together with DIC, Sun Chemical has over 20,000 employees located at 176 subsidiaries across 63 countries working every day to meet the needs of customers by improving performance on the essentials of business, such as reliable, on-time delivery and consistent product quality. Sun Chemical tailors solutions to unique customer needs and brings new ideas and the latest technology to market. As you move forward into a world of stiffer competition, faster turnarounds, more complex demands and sustainable products, count on Sun Chemical to be your partner.

working for you.

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